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MII Playback is a monthly newsletter published by the MII Users Association for the benefit of the members.

Executive Director David R. Gardy

Publications Editor Jonathan Trenn

The opinions expressed in this publication are those of the individuals quoted and do not necessarily reflect the position of Panasonic, the MII Users Association, or its members. Neither Panasonic nor the association assumes responsibility for the statements made herein nor for the alteration of any technical equipment. It is advised that you consult an authorized Panasonic dealer before attempting to repair equipment on your own.

The MII Users Association can be contacted at:
MII Users Association
c/o Gardy McGrath International, Inc.
1950 Roland Clarke Place
Suite 100
Reston, VA 22091

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The NAB'95 Users Meeting in Vegas...an Important Time to Speak Your Mind About Our Future...

.....Even if You Can't Attend, We Value Your Input. This Issue's Questionaire is One Way to Insure your Voice is Heard.......

EXECUTIVE COMMENTARY

March 1995

nce again, the games are upon us. Its NAB '95.

And, as in past years, the MII Users Association of America will be actively involved with a presence on the floor (booth no. 11847) and our annual users meeting and reception on Tuesday, April 11 at the Riviera Hotel from 2-6PM. This is always a truly enjoyable event, as fellow MII Users get together and share information, war stories and opinions. Panasonic representatives speak on various subjects and then open the floor to receive feedback.

This year your participation is especially important. The questionaire we've provided in this issue can be used to forward points you want to make at the meeting, which we'll be happy to bring up for discussion. If you're in Vegas, we sincerely hope you will be in attendance at our meeting, especially this year, when many issues regarding the future of MII and the association will be discussed. If you cant attend and wish to contact us at the booth, call user headquarters at 1-800-966-1030 for the booth phone information which will be available after April 7. If you wish us to represent you on the floor with Panasonic or another vendor concerning an interface with MII equipment, we'd be happy to relay the information. As always, we're here to serve.

Users should know that this year, Panasonic has received

more requests for MII loaner equipment from exhibitors on the floor than in any other year in MII history. The demand is being driven by non-linear system and software based manufacturers such as Video Media, Matrox, and a new entrant, "Play,Inc.", made up of former Newtek people. It is a positive sign to see so many of the new manufacturers choosing MII for their tape source needs at the show, where signal quality at the monitor is a priority.

We'll be reporting on all events in the next issue, from the Panasonic press conference to the latest product offerings. Thanks for your continued input and support. See you at NAB '95.

David R. Gardy
Executive Director

MII Users Association of America

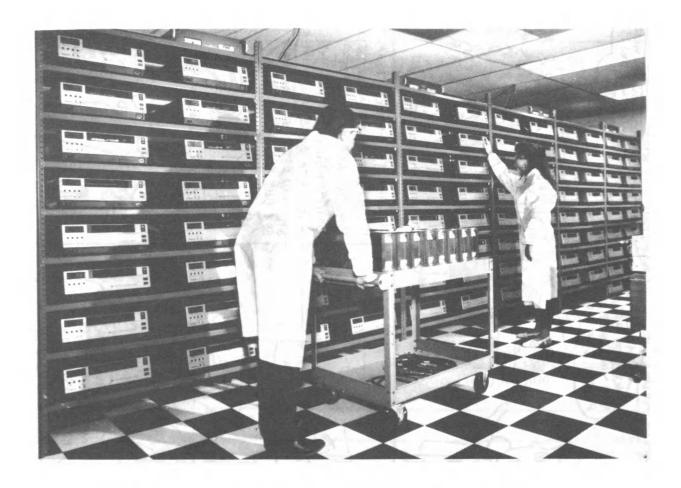
The Association needs your 1994-1995 membership dues!!!!

This form and a \$25.00 fee are required to continue membership in the association and receive this monthly newsletter. Please don't hesitate. (Thanks to the many who have already sent in their membership fees!) We have tried to make this form as simple as possible. Please take take the time to fill it out now. We would appreciate it if you would take a few extra minutes to provide the information in the "optional" section so that we may better serve the association. This form and your \$25.00 dues must be returned immediately. Make checks payable to the MII Users Association of America. Return to: MII Users Association of America, c/o Gardy-

McGrath (Int'l), Inc., 1950 Roland Clarke Place, Reston, VA 22091. Phone (703) 620-6000, fax (703) 620-0451.

Membership Registration Form

Date:	Renewal:	New Member:
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Company Name:		
Mailing Address:		
	F. N. 1	
	Fax Number:	
Type of Business/Services:		
Optional:		
-	iation?	
	ation facility (List additional formats below)	
	MII Dealer MII Repair Center	
	ou had it?	
	anning to get it?	
	:	
Check number:	_Name on Check:	Date:
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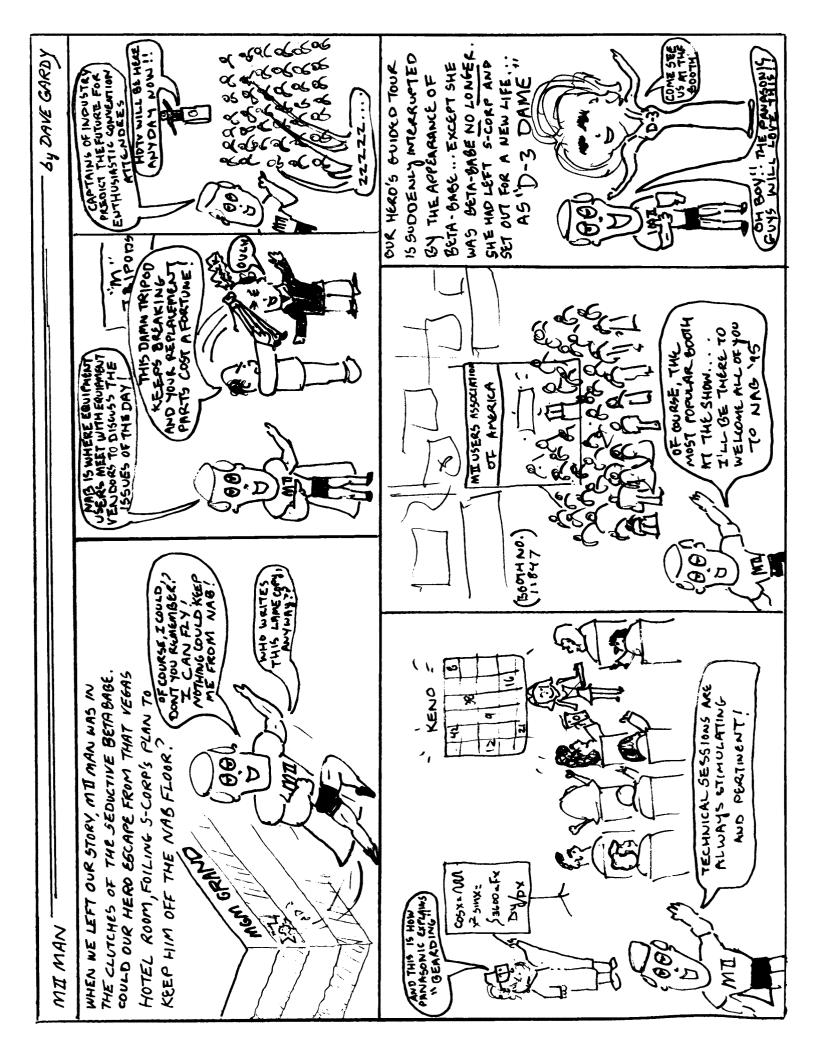
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The MII Users Association is Exhibiting at NAB! Meet MII Man at Booth #11847

For the fourth consecutive year, the MII Users Association of America will be represented at the National Association of Broadcasters Convention in Las Vegas. The dates of this year's show are 10-13 April. MII Users should come to booth #11847 (located in S-2, near the Toshiba exhibit) to meet Dave Gardy and Jonathan Trenn from association headquarters.

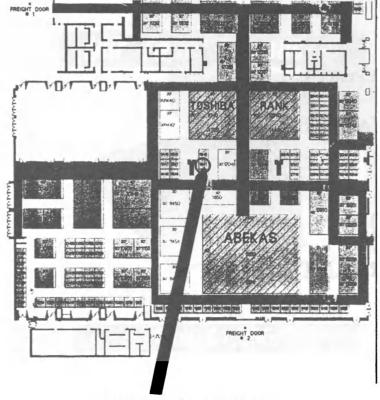
The Association is holding an MII Users
Meeting on Tuesday, 11 April in the Riviera
Hotel. The meeting will be held from 2:00 to 4:00
in Room C, followed by a reception from 4:00 to
6:00 in Room C. This is a great chance to meet
fellow MII Users nationwide, to voice your ideas,
opinions, and questions about the MII format or
the association, and to meet Panasonic
representatives. If there are specific
questions/concerns that you would like to have

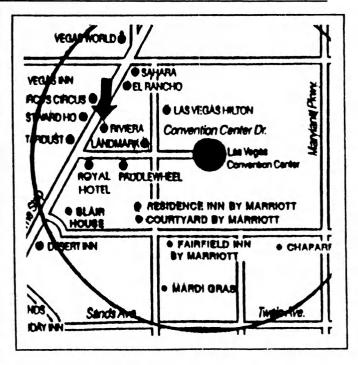
addressed at the meeting, pleas fill out the MII Users Meeting Questionnaire on page 12 of this newsletter. Your voice will be heard even if you are unable to attend.

If you will not be present at the convention of the meeting but would like to direct questions to the association or simply give support to the association during the show your can call us during the show, you can call us during the at the MII booth. Our phone number is (702) 774-1845. If for some reason you need to get in touch with the association outside of convention hours, association headquarters representatives are staying at the Riviera Hotel.

Pre-NAB questions or comments? Call Jonathan Trenn at association headquarters at (703) 620-6000 or 1 (800) 966-1030.

2:00-2:15	Opening Remarks	David Gardy
	Panasonic	
2:30-2:45	MII Product Manager	Rick Albert
	MII Renew	Alan Lloyd
3:00-3:15	The Dealer Perspecitve	Paul Farren
	First User.	
3:30-3:45	MII and Digital Systems	Mark Kregel
		David Gardy





MII Users Booth #11847



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R.P.C. Video, Inc. 384 Route 909 Verona, PA 15147 (412) 243-1300

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Videoplay Industries, Inc. RT30 Tolland Ind. Park Tolland, CT 06084 (203) 872-9195

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Avonix Video Ayatems, Inc. 3495 N 124th St. Brookfield, WI 53005 (414) 783-6050

B&J Photo, Inc. 525 North Main St. Findley, OH 45040 (419) 424-0903

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Swiderski Electronics 1200 Greenleaf Ave. Elk Grove Village, IL 60007 (708) 364-1900

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Thalner Electronics Labs, Inc. 7235 Jackson Rd. Ann Arbor, MI 48103 (313) 761-4506

Todd Communications 6545 Cecilia Circle Minneapolis, MN 55435 (612)941-0556

West

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PCI, Inc. 1595 West Amador, Suite H Las Cruces, NM 88005 (505) 523-7788

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Video Store, Inc. 2601 McHale Ct. #140 Austin, TX 78758 (512) 837-2000

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Gendra Broadcasting Corp. 2800 Biscayne Blvd., Suite 700 Miami, FL 33137 (305) 372-8845

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Total Audio Visual Services 811 Mariettta St. Atlanta, GA 30318 (404) 975-7555

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Have you returned your membership registration form and \$25.00 dues?

If you have not, please do so immediately!!! Make checks payable to the MII Users Association of America. Return form (found on page 2 of this newsletter) and payment to:

MII Users Association of America c/o Gardy-McGrath (Int'l), Inc. 1950 Roland Clarke Place, Suite 100 Reston, VA 20091 (703) 620-6000 or 1-800-966-1030 Fax: (703) 620-0451 □

MII Job Shop

Position Wanted

Sales representative for an A/V Equipment Manufacturer. Thirteen years experience as an Audio/visual Specialist with a large corporation

Experienced On-line MII Editor, preferably PALTEX and IMPACT DVE expertise, must be willing to relocate to the Washington, DC area, salary commensurate with experience. Ref. #9202A

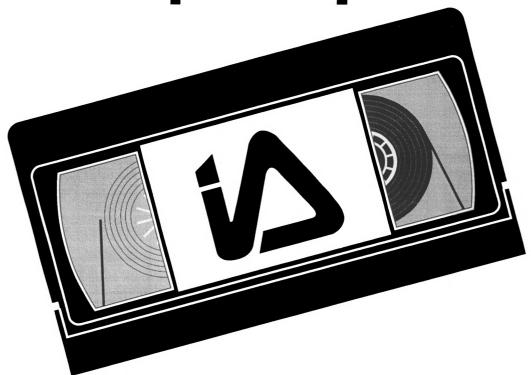
Experienced Amiga Graphic Artist, 2-D and 3-D capability, familiarity with MII desired, must be willing to relocate to the Washington, DC area, salary commensurate with experience. Ref. #9202B

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Industrial Audio Video Houston, TX (713) 535-2375

Industrial Communications Birmingham, AL (205) 942-0132

International Video Center 2528 Edgehill Rd Cleveland Heights, OH 44106 (216) 321-1440

Juntunen Video Minneapolis, MN (612) 341-3348, Mike Vinup

MagneTech Ft. Lauderdale, FL 800-683-DUPE

Majestic Video Burbank, CA (818) 843-1806, Cliff Sawyer

Master Images Video Duplication, Inc. Wheeling, IL (708) 541-4440

Media Concepts St. Petersburg, FL (813) 321-2122, 800-330-3873

Multi-Magnetics Denver, CO (303) 825-7768

Network Video Services Alexandria, VA 800-289-DUBS (3827)

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VideoPlay Industries Rockville, CT (203) 875-5211

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Vidicomp Distributors Houston, TX (713) 694-6400

VIP Duplication 2908 Cameron St., Suite-B, Monroe, LA 71201 (318) 322-8222, Phillip Nelson

VU Video Denver, CO 800-637-4336, Eric Wheeler Wilderness Productions S. Lake Tahoe, CA 800-874-7488, in CA (916) 577-3008

WGVU/WGVK-TV Grand Rapids, MI (616) 771-6666, TDD 800-748-0488

WPSD-TV Paducah, KY (502) 442-8214, Bob Fesmire

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Inter-cite Video Montreal, Quebec (514) 342-4545

Lynx Video Production Toronto, ON (416) 516-0270, Jim Blake

Marine Video 1955 Wylie St. Vancouver, B.C. V5Y 3N7

If your company isn't listed here, please call 1-800-966-1030. □

MII Playback 11

NAB 1995 MII Users Meeting Questionnaire Form

The MII Users Association NAB Meeting will be held on Tuesday, 11 April at the Riviera Hotel and Casino from 2:00 - 4:00. The hotel is located at 2901 Las Vegas Boulevard South.

This form may be used even if you plan to attend the meeting. However, if you know that your are unable to attend and would to address questions to the Panasonic panel (service, marketing, leasing, etc.), please fax this form to the association no later than Friday, 31 March 1995. If you are planning to attend the meeting, you may drop it off at the MII Users Association booth (#11847) anytime on Monday or Tuesday before 2:00 pm. The booth phone number is (702) 777-1845. We'll make sure that all submitted questions are addressed during the meeting.

Please specify the area(s) to which your are addressing your questions.

Please ask the	following questions for me:	
(1)		
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(2)		
(2)		
		
	- 145 - 15	
(3)		
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- Scheduling to fit your planned down time. A limited number of link machines are available at reduced cost

MII Trading Post =

Please contact us when the equipment is sold!!!

Equipment Wanted

Wanted: AU-TB50, AU-66 Studio Deck. Cash. Call Kevin at (310) 281-7599.

Wanted: Used MII Tapes. Any length. Contact Jamie Dotson. (800)842-4273. 1/95

Wanted: Panasonic MII Camcorder Model WVF 500 and AU 45 Back-Send cash price and condition. Bob Benson Video Film. (508) 432-1200. 1/95

Wanted: Panasonic AU-550 Fleld MII editing VCRs. Any condition.

Spare Parts Inventory for AU-550, especially printed circuit boards. Contact Jonathan Meyers at (612) 642 4637. 12/94

Wanted: PC video card that will render *.TGA files at NTSC 720 x 486 resolution or greater. Needs Component or RGB outputs. Call Gary Dansie, Options Inc. (801) 467-7421 11/94.

Wanted: Amiga 2000/2500. Need CPU, will consider some extras-cheap. Also want rear-screen fabric or panel, 4'x6' or larger, Panasonic interfaces for IVES II. Contact Steve Braker at (608) 251-8855.

Wanted: MII player and Sony 5850 recorder. Call Peter at (818) 888-8673.

Wanted: Alamar 1055 and SC 2000's, used or new, Call John Bishop (704) 398-0046.

Wanted: Amiga Computers & related hardware, as well as used working prosumet video equipment. Copperhead Technologies, (518) 346-3894.

Equipment for Sale

sonic MII NAB '95 demo Sale: AU-W35H studio editors, AU-W#@H edit source players, AU-45H dockable VCR's \$CALL, Used Panasonic Broadcast AU-550 field production editor with Slo. Mo. and AU-400 dockable VCRs. \$CALL. Desktop Digital Video turnkey computer systems featuring: FAST Video Machine non-linear and linear, Pinnacle Alladin, TAO Editizer A/B controller, DPS PAR, 3D Studio, Topas Prof., Flying Fonts, TrueSpace, & LightWave 3D Animation software. Sanvo GVR-955 S-VHS VCR and Edit_pro V.M. Lite Package. DSC/Chyron Illusion 3D DVE loaded \$3995. Panasonic demo. AG-7750 w/TC board S-VHS editing VCR. \$4295 Wiegand Audio Video Labs. (614) 967-0059. Fax (614) 967-4453.

AUW-32 MII Player, AU-33H MII Player w/ Dynamic Tracking, AUW-35H MII Editor. All units 'like new' from NAB Las Vegas Show. Also, AU-45H MII Dockable Recorders all at BIG SAVINGS!!! Call Jim ot Don at (412) 898-1630.

Panasonic AU-410s recorder docked to Panasonic 300CLE camera, without lens, excellent condition \$6400. Call Don at (613) 821-7783.

JVC KRM 800 Editing VCR. Excellent, 400 Hour Use. New upper head with zero hours. Used as backup. No longer needed. \$3500. Bob Benson Video Film (508) 432-1200. (508) 430-1184. 3/95

Videotek Prodigy Switcher 10 input, chroma, luminance 7 DSK, & G-MEN; Magni Vectorscope" V553; Tektronics "Waveform" 528; Tektronics "Waveform" 1480R; RM-p3 Remote CCU for Sony Camera; 2 JVC TM-R14u Video Monitor 14" with underscan, blue, B minus color, A/B, RGB; 2 Panasonic WV 5350 B/W Monitors in Dual Mount Tray; O'Connor MOdel 30B tripod hd; ALR Computer 386/4MG RAM/300HD; NEC Multisync 2A Color Computer Monitor; (2) Spool of RG/SQU Coax (1000 ft. ea.); Custom Console 5 Bay with area; (2) Electro Voice Sentry 100A Studio Monitors w/wall brackets; Leader 5860 C Waveform Monitor (NTSC); Leader 5860 C Vectorscope (NTSC); AVL Data Booster Isolator (4); AVL Power Control; Barco RGB Distribution Amp with Sync: Ace Component Converter ASC200/732-732-731 Cards; Videotek VSC-21 Signal Generator; Chyron ACG 4mg/20HD

1 Abekas A-53D Single Ch., \$21,000. 1 Alta Pyxis E (Dual TBC w/FX /Full Frame) \$1500. 2 Audio Digital Add-2 Digital Processor \$300.00 ea. 5 BTS LDK-91 w/Fuii 18X w/2X VGC \$25,000 ca. 3 C.E.L. P147-20 Frame/Store Synchronizer w/P-151 Control Panel (Doc/Joystick Position/FX) \$2,200 ea. (\$15,000 new). 1 Chyron 4200 EXB/MGM/Dual Chnl. Never used in truck/full studio. \$8500. 1 Hitachi VO-99 Port. Waveform Monitor \$600. 1 Hotronics AH-91 Dual TBC w/FX/Dual Out (Y/C Composite/Dual TBC), \$2000. 1 FOR-A FA-410 Full Frame TBC, \$1000. 1 FOR-A VPS-300 Like New, \$21,000. 1 Grass Valley 100 Switchers Loaded with all options + E-MEM Option, \$8500. 2 JVC KY-210 Studio 3-Tube Cameras, \$1900ea. 2 JVC RS-500U 19 Pin Out/Connect for KY-Series Cameras, \$1900 ca. 1Laird 1500 Character Generator, \$1200. Contact Charles/Bill/Steve/Joe/Ed/Paul at ((813) 546-6407.

Edit System; JVC BRS6114 to JVC KMR800 (new heads) using JVC RM-88U as controller includes 2 cables) \$5750. Contact Bill Tucker (518)356-0334 3/95

Panasonic AU-63 Auto Tracking (slow motion) MII Video Player, \$4995.

Listec A-2201 Lomg Bed Teleprompter Script Table (1992 @ \$4150) inc. Panasonic WV-1410 Vidicon Camera, lamps and control cables. Was our primary unit before computer prompter. Now \$1000.00 Listec A-2210 Short Bed Teleprompter Script Table (1986 @ \$3175.00) inc. Ikegami Camera, cables. Now \$500.00. 2Ea. 12" B/W Prompter monitors (1986 @

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We're going linear! We're offering for sale one MII AU-65H editing recorder and one MII AU-63H auto-tracking player. Low hours on both machines. Both less than 2 years old. Includes all original boxes, packaging material and manuals. Asking \$7000 for AU-63H, \$8200 for AU-63H, both for \$14,500, or best offer. Contact Ann Jones at VenaVision Productions at (817) 322-9205.

AU-65H MII Studio Edit Recorder. Dealer demo with full warranty. \$8250. AU-63H MII Studio SLO-MO Edit Recorder. Dealer demo with full warranty. \$8250. Call (800) 451-1425.

KR-M820U Editing Recorder. Has TC Board Installed. \$3000. KR-M800U Electronic Editing Video Color Cassette Recorder. \$2500. Save \$500 by purchasing both - pay only \$5000. You pay shipping. All sales final, equipment purchased "as is". No warranty available or implied. Since we are a state run facility, all items must go out to bid before sale. Contact Jim Gaar at (816) 235-1096.

JVC KY-153 chip camera w/JVC BRS-410 dockable S-VHS deck, a/c adapter/charger. Hard case camera mount plate. \$2700. Back-up BRS-410, \$1200. Buyer pays all shipping. Contact Jody Heurung at (612) 935-0033.

4 Paasonic Au 300 B 'M' Format, 1 Convergence 195 Edit Controller. <u>Contact</u> <u>Don Eckis at (509) 547-0547</u> <u>2/95</u>

Sony BVU 25 Beta Portable with AC. \$4000. Call Dave Andrews at (801) 272-3031. 1/95.

AU-63H MII Studio edit recorder, Dealer demo with warranty-\$8250. Call (800) 451-1425. 1/95

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Ampex ADO 100, \$11,000. For info, call Neil Stewart at (713) 333-1523 or Fax (713) 335-7816. 1/95

Panasonic Supercam AGDP800XL with 14x Lens, Case, Tripod Plate, 2-Anton Batteries & Charger, \$7570. Panasonic AGDS840 Source VCP with Digital Slo-Motion. \$4360. Shure M267 Microphone Fleld Production Mixer, \$380. Mackle CR1604 16x2 Andio Mixer, \$725. Elki LC5200 Data Video Projector,

connects direct to computer, \$7550. Call Greg at (607) 687-0545. 1/95

MII Studio Recorder/Player, JVC KRM 800u, used at authorized repair shop, fully tested, brand new head, \$2950 or best offer. Call Tom Miller at (406) 222-6733.1/95

AU-65 w/ AUF65 \$5,000, AU45H never used/full warranty \$3999 Call for details. <u>Contact Brent</u> (503) 598-9142 10/94

JVC, BR-S611U, S-VHS Recorder with rack mount hardware, 500 hours, like new, \$1795. Call Ron at (516) 285-7146 10/94

2-AJ-D350 Panasonic D-3 Recorder, \$33,000.ea 1-AJ-D320 Panasonic D-3 Camcorder \$25,000. Contact Juan C Carrillo (305) 592-2034 10/94

Panasonic AU-65's Edit Recorder, \$5000. Call Vin Sisson at (216) 527-2182 11/94

FOR.A CVM 400 6-input component switcher, 2yrs. old \$10,000. Sony VO 4800 3/4" field recorder \$750. Chris Turner (318) 325-1544 9/94

Must Sell! AU65H Editing VCR. Like new! New drum has only 150 hours of use. Low "power on" time. 1.5 yrs old. Full documentation and manuals included, \$7500 or B/O. contact Bruce Edwards (714) 583-7837, 9/94

TM-90U Color Monitor 2 channel w/ multi pin RGB input, \$200. <u>Contact Dan Hall at Video</u> <u>Management Systems</u>, (317) 841-1212 11/94

Panasonic PTB1010UF 120" Video Projector Sealed New in Box \$4,700 (\$9,350 Retail) Panasonic DM7010 Dockable WVF700 and AU410 only 10 hours demo \$10,800 (\$24,000 Retail). Panasonic BTM1310Y Monitor A/B split acreen, RGB, pulse cross \$1,000 (\$2,000 retail). AU55H demo, \$9,400, AU65H demo, \$11,200. AU66H demo, \$14,000. All include Full New Warranty and Shipping! Greg LaDue (607) 687-0545, 9am -6pm, E.S.T.8/94

Hitachi Z31 Cameras (3) excellent cond. w/complete ENG & studio kits \$5000ea. Hitachi SK70 Cameras (2) Good cond., B/O.Sony BVU 200 Editing System (3/4), very good condition, \$975. ISI 902 Switcher very good cond., B/O. Chyron VP1 character generator w/12 fonts, B/O. Arvin Echo Slo Mo, needs work, make offer. Panasonic WV2150 Cameras (2) w/rear control lenses (studio cams), make offer. Contact John Cahill (908) 269-0100 (NJ).11/94

Various MIDI gear (Roland, Yamaha, others) for audio production. (sequencers, synths, sound modules, digital FX, etc.) Contact Pete Schaefers. (503) 267-7120.8/94

Interformat IVES II A/B V2.4C controller, frame accurate, programmable A&V fades, GPI, capstan bump, EDL print & serial, sync & BB gen, LTC gen/read, w/3 parallel interfaces, excellent, \$1200 450/BO. IVES II cuts system, \$900. A/B Box, \$450. Interfaces for above: 3JVC, 2 Sony, 1 Panasonic, \$95 each. Much Amiga stuff? Contact Steve Braker at (608) 251-8855.8/94

O'Conner 50 Fluid head on wooded legs w/spreaders. Good cond., \$1,275. All carry a 30

day warranty. Ampex ADO-100 DVE, 3D Option & Upgraded software, \$16,000. Graham Patten 1241 Linear Keyer, 6 level w/drop shadow, hard/soft keys matte gen., adjustable masks, ext. video GPI and more, \$4300, JVC KM-2000 Switcher, \$1500, Panasonic WJ-5500A Switcher, \$775, Matthey Video Delay Line, o to 320 NS, \$225, Panasonic 3/4" AB roll sys. w/ 3-AU-700 's, AUA70 controller, AU-J10, good offline system w/manuals & spares, \$2,900, Much more, owner retiring. Call for full list. Contact Bob Pooler at (508) 263-7727 (Boxborough, MA).8/94

Panasonic AU-410S, AU-63, AU-65, all approx. 2000 hours, package deal, \$15,000. <u>Call Don</u> <u>Atchison at (613) 821-7783 (Ottawa)8/94</u>

JVC KRM800U MII Editing VCR. Low hours, excellent condition. \$3,400/BO. Call Alan (610)649-8482.8/94

Alta Centaurus Dual Channel TBC Digital Effects/Stillstore System, \$7,500. DUBNER 5K Character Generator, \$3,500. Paltex Abner A/B Edit Controller, \$2,500. Contact Mark Johnson at Reel Video Productions, (814) 695-8054 (Hollidaysburg, PA).8/94

JVC KY210B 3 Tube w/ Fujinon 16x1. Hard case, tripod plate in excellent cond. Was used as back-up Cam only. Rated over 700 lines, \$2,495. JVC CR4900U 3/4" Portable w/ portable case. Exc. cond., \$1,000 firm. Contact George at Video Proofs, (707) 586-0383 (Rohnert Park. CA)8/94

AU-63, AU-65, AUF-65, DM7010. <u>Call</u> GerryLevine with B.O. at (508)667-0009.8/94

Panasonic S-VHS Professional Edit Package. AG7750 Edit Recorder w/ time code, AG7650 Source Player w/ time code, AGA770 128 Event edit controller, all interface cables. Demos w/ one year warranty! Only \$9750 (\$18,410 list). Call (607) 687-0545, 9am-6pm. E.S.T. (Owego, NY).8/94

Newly manfactured Compuvideo waveform monitor/vectorscope, \$1429. One year warranty. Call VIZ Tech at (718) 714-9873 (Brooklyn, NY)

Used Amgla Video Toasters, Amiga 2000's, 3000's, & 4000's. Call Bill Tucker, Copperhiead Technologies, at (518) 346-3894 ext. 300. (Schenedtedy, NY),8/94

KRM 800 editor, under 100 hours on new heads, \$4,500 or best offer. Call Scott Green at (608) 274-9944.8/94

3 Hitachi Studio Cameras, Model FP-40S, w/ CCU's, cables and ITE tripods. Complete pkg \$ 1500, nego. Call (804) 743-1171, ext. 238.8/94

1 Graas Valley VPE-131 Production Editor \$8000, 1 AU-63 player, \$8500, 1 AU-62 player \$6000, 1 Ag-1950/AG-A95 VHS Editing Package \$1600, 2 Panasonic WV-F250 cameras w/ENG kits, docking adaptora, lenses & Au 410 docking recorders \$11,000 cach, misc. Brand new MII Tapes: M90L \$46 ca., M60L \$30 ca., M30L \$20 ca., M10L \$10 ca., M20S \$15 ca. Call (307)332-9714 10am to 7pm E.S.T.8/94

JVC KR-M820U Edit/Recorder with TC,

\$3,000.000. Good condition, needs some
"tweeking." Heads are good. Call Jim (816)
235-1096 (Kansas City, MO). HURRY!8/94

JVC KRM 800U recorder/editor, excellent condition w/ new heads. Asking \$4,000.00.

Contact Rick Carr (813) 522-3000 Clearwater, FL).8/94

Facilities/Suites

MII A/B ROLL FULL COMPONENT EDIT SUITE, includes: (1) Panasonic AU-60 MII edit/recorders w/ TC, (1) JVC KR-M820U MII edit/recorder, (1) JVC CR-M850U 3/4 edit/recorder, Paltex Europa Edit Controller 7 status monitor, JVC KM 3000 Seg/switcher, Microtime Genesis Act1 DVE, (1) JVC KM-F250 TBC, Laird 1500 Character Generator, Lenco RGB-Composite Encoder, Panasonic BT M1310Y monitor, Sigma CSG-460 Sync Generator, Sigma SVC-213 Routing Switching, Winstead 5 bay rack mounts. Full Documentation included. \$39,000. May consider pricing out. All well maintained. Buyer palys all shipping. S-VHS CUTS SYSTEM w/ A/B roll expandability, includes (2) Jvc BR-S810U edit/recorders, 2 13' system monitors, Paltex Abner parellel idit controller with TC, 9' B7W status monitor, all cables to allow for A/B roll capability. \$3,000. Buyer pays all shipping. Contact Jody Heurung at (612) 935-0033.

A/B ROLL EDIT Suite, includes (2) Panasonic AU-65's Edit Recorders, (1) AU-63 slo-mo player, (1) Panasonic AG-7750 SVHS Edit recorder, Alta Pegesus switcher, For-A 3000 3D DVE, Inscriber CG package w/ 486DX2-66 PC, Editing Technologies "CMX style" editor w/ serial control, Tascam 688 midi studio 8-track cassette, audio router and mixer, System wired Y/C, all cables furn., system is working and producing programs daily. Asking \$39,000. Panasonic 300 CLE camera w/ full studio kit, \$3,500. Panasonic AU-400 MII dockable recorder w/ VT-10 docking adapter for 300CLE camera, \$3000. ITE-40 tripod, \$300. Call Vin Sisson at (216) 527-2182 11/94

We're going Digital!! MII A/B Roll FULL COMPONENT Edit Suite, includes (1) Panasonic AU-60 MII edit/recorder, (1) JVC KR-M820U MII edit/recorder, (1) JVC KM-F250 TBC, (1) JVC KM 3000 Seg/switcher, Microtime Genesis Act 1 DVE, Laird 1500 Character Generator, Lenco RGB-Composite Color Encoder, Sigma CSG-460 Sync Generator, Sigma SVC-213 Routing Switcher, Monitors, Winstead 5 bay rack mount counsel, cables. Documentation included. System in full working order. \$45,000. BONUS! Includes up to 20 hours of System Engineer set-up time if purchased in Mpls/St. Paul Metro Area before February '95. (additional Materials/cables extra). S-VHS CUTS SYSTEM w/ A/B roll expandability, includes (2) JVC BR-S810U edit/recorders, (2) 13" system monitors, Paltex Abner parallel edit controller with TC, 9" B&W status monitor, all cobles to allow for A/B roll capability. \$3,000. Buyer pays all ahipping. JVC KY-153 chip camera w/ JVC AU-410 dockable S-VHS deck, a/c adapter/charger, Hard case, camera mount plate. \$2,700. Back-up AU-

410, \$1200. Buyer pays all shipping. Please contact Jodi at (612) 935-0033 (MN) for details. 11/94.

Tapes

3M New MII Videotapes- Length 10 min./Price \$22.25/Quantity 25; 20 min./\$25.75/30; 30 min./ \$29.69/34; 60 min./\$44.49/25 90 min./\$66.79/11. All sales final. All sales final, equipment purchased "as is". No warranty available or implied. Since we are a state run facility, all items must go out to bid before sale. Contact Jim Gaar at (816) 235-1096.

Used MII Tape, limited number of MII tapes, Large cassettes, 30's, 60's 90's and small 20's, Most with low passes, most with factory cases. Good for many purposes. Buyer pays the shipping charges. Contact Ed McKay or John Bishop at (704) 398-0046, or fax (704) 393-8407 (NC).

If you have equipment you would like included in the next Trading Post, please contact us in writing, either by fax or mail at MII Users Association of America, c/o GMG International Inc., 1950 Roland Clarke Place, Suite 100, Reston, VA 22091, fax (703) 620-0451, toll free 800-966-1030. Please contact us when the equipment is sold. □

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Association Membership

If you are not currently a member of the MII Users Association of America and are interested in joining. Please fax or mail us the following information: company name, contact persons name, mailing address, phone and fax numbers (if available), if you do or do not have MII and which machines (make & model) you have. We may be contacted at: MII Users Association of America c/o GMG International, Inc.

1950 Roland Clarke Pl., Suite 100 Reston, VA 22091 Or you may fax us at (703) 620-0451,

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RECOMMENDED CLEANING AND MAINTENANCE PROCEDURE

Sections-

- 1.0 Upper Drum
- 2.0 AC Head Stack
- 3.0 Field Cleaning the Portable Unit
- 4.0 Tape Path
- 5.0 Cleaning the Pinch Roller
- 6.0 Cleaning the Capstan
- 7.0 Cleaning the Posts
- 8.0 Cleaning the Fixed Posts
- 9.0 Brush Assembly
- 10.0 Cleaning the Earthing Assembly
- 11.0 Final Disassembly and Cleaning
- 12.0 Emergency Tape Unloading Procedures
- (+ Conclusion)

(III.) LESSON 3 APPLICATIONS AND OVERVIEW

(Including basic troubleshooting)

Sections-

- 1.0 Introduction
- 2.0 Stand Alone Single Machine

Configuration

- 3.0 Machine to Machine (cuts only applications)
- 4.0 A/B Roll Editing Systems
- 5.0 MII Menu and Setting Instruction

(II.) LESSON 2 UPPER DRUM REPLACEMENT AND ELECTRICAL ALIGNMENT

Sections-

- 1.0 Cleaner Roller Removal
- 2.0 Mounting of Fixing Plate for Tip

Protrusion Gauge

3.0 - Video Head Tip Protrustion for

Measurement

- 4.0 Removal of Upper Drum Assembly
- 5.0 Upper Drum Re-assembly
- 6.0 Eccentricity Gauge Adjustment
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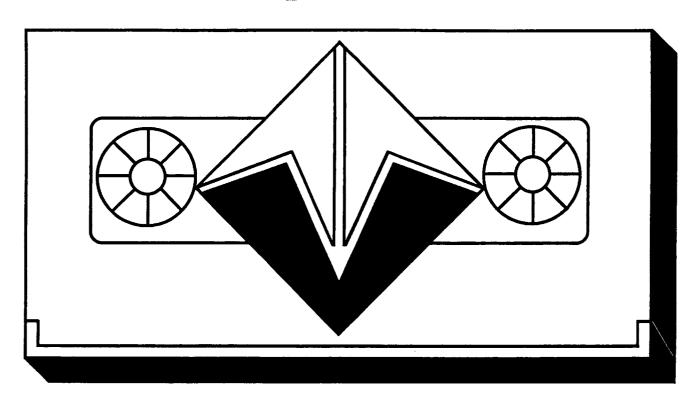
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PANASONIC ADDS RGB I/O TO ENHANCE MII SERIES VTRS

Secaucus, NJ (March 7, 1995) — At NAB 1995, Panasonic Broadcast & Television Systems Company will announce the addition of RGB inputs and outputs to enhance its MII PoWer Series of videocassette recorders.

The cost-effective, full-featured product line is based on the MII PoWer Series (introduced last year), with the key addition of RGB input and output capability, which yields higher resolution when connected to a computer system The MII "W" Series models, the AU_W35R Studio VTR, the AU-W33R Studio Player with Auto Tracking and AU-W32R Studio Player, meet today's needs in multimedia production, computer graphics and nonlinear editing. In design and performance, the VTRs reflect the traditional MII commitment to analog component recording.

The new MII "W" Series offers RGB input and out put: the RGB mode is a standard in computer-based image processing. The component-system RGB format assures excellent picture quality in producing multimedia titles, inserting moving video pictures into presentations, producing videos using computer graphics, and nonlinear editing.

The AU-W35R MII studio VTR and AU-W32R MII studio player both feature high quality picture, 3 dimensional-type TBC with full field memory for excellent

dropout compensation, built-in time code generator and time code reader, and freeze picture function for noiseless still without Auto-Tracking. They also have 4-channel audio output, auto head cleaning mechanism, built-in TBC level control and tiltable control panel.

The AU-W33R MII studio player offers all of the features of its companion units plus an Auto-Tracking capability for full control of noiseless slow motion and still playback.

All of "W" Series products feature 32 times normal search speed, with picture, for ultra-fast searching. They have color framing control for optimum picture, for ultra-fast searching. They have color framing control for optimum picture quality in editing and production, front-panel tracking control volume for easy access to tracking adjustments, and 16:9 picture compatibility for smooth transition to wide aspect ratio television production. They also provide composite, component and Y/C inputs/outputs for easy interface to an array of production environments.

The AU-W35R MII studio VTR, the AU-W32R MII studio player, and the AU-W#R MII studio player with Auto-Tracking will be available in the third quarter.

PANASONIC REALIZES "TRUE POTENTIAL OF DIGITAL" **DVCPRO: AFFORDABLE DIGITAL COMPONENT SYSTEM**

Secaucus, NJ (March 16, 1995) — At NAB 1995, Panasonic Broadcast & Television Systems Company (PBTSC) will introduce DVCPRO, a revolutionary digital system based upon the fundamental philosophy that future video systems will be hybrid, i.e. combining disk and tape, and maximizing the virtues of each. The Panasonic DVCPRO system begins with affordable component digital acquisition with traditional recording and editing, and extends iinto non-linear editing, and video serverbased release.

"Panasonic believes that DVCPRO represents the optimal trade-off between compression ratio, signal structure, and data rate to maximize quality and multigeneration performance and to minimize compression artifacts," said Steve Bonica, President, PBTSC.

DVCPRO fulfills the promise of digital by being component, affordable, rugged, networkable, compact, with removable media. DVCPRO is truly better, faster, and cheaper.

"Panasonic's vision of the future starts with acquisition. DVCPRO is a revolutionary solution to the need for cost-effective, high-quality digital acquisition," said Bonica.
"But our story doesn't end with ENG. We will be offering end users different solutions to implement an all-digital facility."

By combining dramatic advances in technology with actual users' input, Panasonic has produced a compact format using 6.35mm cassettes comparable in size to compact audio cassettes and more durable than other small formats. DVCPRO media will cost less than today's component analog tapes.

Capitalizing on industry-wide research and development, the system records 4:1:1 component digital video to assure image quality and uses 5:1 intra-frame compression to prevent motion artifacts and support frame-accurate editing.

(continued on p. 21)

CNN Involved in Design Process

In the early development stage of the DVCPRO component digital ENG format, Matsushita (Panasonic) was privileged to have the cooperation and design assistance of key engineering personnel from Corporate Engineering, CNN Field Engineering, and CNN Field Operations of Turner Broadcasting Systems, Inc. Numerous development meetings were held in Atlanta and Osaka, Japan with the Matsushita design engineers and the Turner Broadcast in g Team headed by Gene Wright, Vice President of Engineering / The goal of both parties was to develop a new component digital ENG system that performed better than current systems, cost less, and was less expensive to operate. Turner Broadcasting System's Gene Wright stated, "It appears that all design goals have been met, and I am eager to evaluate the DVCPRO production in the field."

DVCPRO Camcorder Sets New Size, Weight, Power Standards

Panasonic will introduce a family of DVCPRO products at NAB, including camcorders, a field recorder, field edit package, studio recorder, digital video disc recorder, four-times high-speed player, office viewer and Smart-Cart automation system.

The products to be introduced at NAB include a digital camcorder that sets new performance levels for size, weight and power consumption, and a professional studio editing VTR. Featuring three 1/2inch (410,000 pixel) FIT CCDs, the ultra-compact DVCPRO camcorder records for one hour, weighs around 11 pounds and its power consumption is less than 20 watts. The DVCPRO editing VTR offers two hours of recording, frame accurate editing, jog/shuttle capability, two channels of audio, digital component serial SMPTE 259M 9optional) and RS-422A serial interface in a four rack-unit package.

The DVCPRO technology has also been applied in the LQ-D5500 digital optical video disc recorder, the world's first digital disc with direct overwriting. The LQ-D5500 records up to 45 minutes of digitally compressed video with two channels of audio, and offers a broad cast quality signal of more than 5 MHz of bandwidth and a signal-to-noise ratio of more 50 dB.

Never Before Possible: Laptop-Sized Field Edit Package

The increasing emphasis on news and the simultaneous push for greater speed and efficiency caused Panasonic to focus on ENG as the first application for DVCPRO. The extremely cost-effective media is remarkably compact, as is the transport mechanism. This compactness allows development of products like the laptop-sized Field Recorder with built-in LCD monitor that fits in the hand.

These, in conjunction with traditional camera recorders and studio editors, answer the wants of news crews the world over.

4X High-Speed Player in DVCPRO Lineup

To gain the speed efficiency needed in the news production process, the 4X Fast Transfer player is in the offing. This will allow faster than real-time downloading of field material into a non-linear system of a central video server.

Deliveries of camcorders and studio recorders will start in the fall of this year. The portable edit system, field recorder/viewer and other products will ship in 1996.

Hewlett-Packard, Storage Tek Support "Open Systems" Approach

Panasonic supports the concept of many vendor participation, each bringing their unique expertise and inventiveness to help satisfy the users' requirements. In this "open system" concept, Hewlett-Packard has joined with Panasonic as the provider of the centralized system video server. Certainly, the introduction of a server will promote both non-linear access and random access for release, and H-P brings tremendous knowledge and experience to Panasonic's total system. Panasonic is also working with Storage Technology to implement their "Nearline" TM operationally transparent archival data storage concept as an archive for the H-P server. Storage Tek is a world-renowned supplier of robotic data library systems for the computer industry. The combination of disk-based server and tape-based archive is yet more evidence of the efficacy of hybrid systems.

In addition to the DVCPRO family, the Hewlett-Packard Broadcast Video Server (BVS) and the Storage Tek Media Vault will be on display in the Panasonic NAB booth.

MII Rental Facilities

Contact the association if you would like your company added to this listing.

Alpha Video Edina, MN (612) 896-9898 Complete MII Edit Facilities

AudioVisual Headquarters Rancho Dominguez, CA (310) 885-4200 Rent out 3-AU-65's, they have shipping cases.

Avon Productions S. Plainfield, NJ (908) 756-0643 Studio & Field MII, Cameras, etc.

Avonix Brookfield, WI 800-222-6050 Full line of MII available

Broadcast Video Products 480 Main St Armonk, NY (914) 273-6649, Jack Miller

Communications Televideo Ltd. (CTL) Silver Spring, MD (301) 585-6311AU-65, D-3 AJD350 Editor, D-3 AJD310 Camcorder

Cinequipt St Paul, MN (612) 646-1780 Full line of MII available Davis Audio Visual Inc Denver, CO (303) 455-1122

ECI Video Dallas, TX 800-880-9400 AU-63H, AU-65H, WV F700 cam /AU-410 dockable

Metrovonics, Inc. Los Alamitos, CA (310) 430-3509 Full line of MII available

Professional Desktop Video Systems Glendale, CA 800-862-7820 Camcorder WV-F700/AU 410

Pro Line Video Austin, TX (512) 837-2000 x30 Full line of MII available

Russell Video Svs. Inc. Ann Arbor, MI (313) 677-4400 Bob Russell

Video Management Systems Indianapolis, IN (317) 639-6163 Sony M7 Cam., AU 500 Portable MII Deck

Video Replay Chicago, IL (312) 467-0425 AU-66H

Vidicomp Distributors Houston, TX (713) 694-6400

WGVU/WGVK-TV

Grand Rapids, MI (616) 771-6666, TDD 800-748-0488 AU-650, AU-500, AU-400

Canadian Rentals:

Edcom Multimedia Kitchener, Ontario N2B 2E1 (519) 578-2260 WV-F500/AU/-45H, AU-W35H

Instructor Aids Halifax, Nova Scotia (902) 468-2226 WV-F250/AU45H, AU-W35H

Inter-cite Video Montreal, Quebec (514) 342-4545 WV-F700/AU-410's, WV-F7000, AU-520S, WV-F500/AU-45H, AU-63H,(2) AU-65H,(1) AU-W33H, (1)AU-W35H.

Smith Sound Productions Charlottetown, P.E.I. (902) 386-2212 WV-F500/AU-45H, Full A/B Roll Edit Suite

VidCom Vancouver, B.C. (604) 732-9711 WV-F250/AU400 Camcorder, AU-63,

SUMMER INTERNS AVAILABLE!!

Question: What has 5 full MII on-line suites, 8 MII camcorders, 3 MII cuts-only suites, a digital audio workstation that lays audio back to MII, 7 Video Toasters, a Steadicam EFP and much, much more?

Answer: The Savannah College of Art and Design, one of the best equipped colleges in the USA, and certainly the largest MII teaching facility.

Obviously our students are trained on the best Panasonic equipment in the world, and as students, they are eager to work as a summer intern in your MII production facility. Students at SCAD come from all over the 50 states and would be in an internship in their home state.

Interested? Contact John Drop, Video Department Chair, call at (912) 238-2407
fax (912) 238-1456
or write to
SCAD Video Department
235 Habersham Street
Savannah, GA 31401



ATTENTION NETWORK AFFILIATES!!

FREE ONE HOUR PROCRAM OF PRESTICIOUS VIRCINIA COLD CUP AVAILABLE TO ALL MII USER STATION AFFILIATES

Gardy McGrath International is pleased to announce that it has been selected as the official television production company to provide coverage of the 70th running of the Virginia Gold Cup. The race, to be produced on MII, will be held on Saturday May 6th. Nestled in the beautiful hills of Virginia Hunt Country, the Gold Cup is annually attended by over 50,000 spectators. The video production of this event, the most prestigious steeple-chasing race in America, is available at no cost to all MII affiliated stations in both MII and VHS formats. This exciting footage will include seven steeple-chase races, presentation of the Gold Cup to the victor, interviews with race officials and participants, and panoramic views of the lush Virginia countryside. All footage is for your free and unrestricted use in this exclusive offer.

To receive your free video presentation, call (703) 620-6000. Programs will become available for the middle of May.





Tech Tips Tech Tips Tech Tips

Jim Franklin of WPSD TV in Paducah reports on a discovery he recently made with an AU-650.

"Symptom was: after timing out in stand by mode to unload back to cassette, the tape instead dumped, no Auto Off initiated by slack sensor and tape was 'eaten.' Manual eject was no problem which was strange in light of what we thought caused the problem.

"After many fruitless hours with no success, someone happened to be 'eyeballing' another location when the taped dumped. It was noted the tape stuck to, and half wrap-ped, around the timer roller. Observation showed it was extremely soft, sticky and a 'damp' dark color. Replacement cured our problem.

"Conclusion: Suspect a new spray cleaner we tried out for head drum flushing. Within a week we had to stop using it because we discovered it 'fogged' the clear hi-voltage brush cover on the top of the head. We therefore assumed that optical sensor windows, such as are part of the Timer Roller circuit, would also be fogged. The latest assumption then is that the chemical(s) of this cleaner probably melted the roller material.

I do not wish to cause the supplier/manufacturer any undue headaches so I'll just list the ingredients:

- a. Dichlorofluooehane (CAS #1717-00-6)
- b. Isopropyl Alcohol (CAS #67-63-0)
- c. Tetrafluoroethane (CAS #811-97-2)

Panasonic Responds to



In response to the many inquiries by association members regarding bearding, Panasonic has chosen to address the issue to assist those who are experiencing it.

Under certain high contrast conditions there is a possibility of bearding, especially when a "F" Series (WV-F500, 700, 565) camera's high band detail is on. The following specifications will apply to both Studio and Portable MII units.

Studio & Portable Recorder

- 1) Set the Playback frequency response level to 95% @ 4MHZ.
- 2) Set the Record frequency response level to 90% @ 4MHZ.

Dockable Recorder

1) Set the Record frequency response level to 90% @ 4MHZ.

Studio Deck Alignment (H & W only)

- 1) Playback the sweep portion of the alignment tape (VFM7089EAG) and adjust the Playback frequency response to 95% (VR315, VR316 W3 P.C.B.)
- 2) Supply a 100% Multi-Burst signal to the unit and adjust the Record frequency response to 90% (VR1, VR2, VC1, VC2 RA/HA P.C.B.)
- 3) Record current pots should be set between 11:00 ~ 12:00 o'clock.

Portable Deck Alignment

1) Set the Record frequency response to 90% and confirm the recorded level's playback in a studio machine.

MII Users Association of American Membership Listing

Alabama

AUVID Productions Int'l Inc. Nancy Kabajain PO Box 1933 Huntsville, AL 35807 (205) 534-4666 MII Owner

DCH Regional Medical Center Larry Parker 809 University Blvd E. Tuscaloosa, Al. 35401 (205)759-7332 MII Owner

First Frame Video Services David Black P.O. Box 995 Pelham, AL 35124 (205) 620-9295 MII Owner

Flint Hill Productions Charles & Mary Golden 255 S. Charlston CT Mongomery, AL 36117 (205)277-7760 MIL Owner

Openshaw Productions Andy Openshaw 3195 Cahaba Heights Suite 9 Birmingham, AL 35243 (205) 970-9041 MII Owner

WAFF-TV 48 Keith Ward 1414 N. Memorial Pkwy Huntsville, AL 35804 (205)533-4848

Alaska

KTOO-TV CCBI Jack McKain 224 Fourth st Juneau, AK 99801 (907)586-1670 MII Owner

Mike Martz Pouch 468 Bethel, AK 99559 (907) 543-3131 MII Owner Arizona

KYLIK.TV

ARC Productions Kit/Robin Hoult 1145 Granite Creek Lane Chino Valley, AZ 86323 (602) 636-4676 MII Owner

COVID Irare A. Csaszar 1725 W. 17th St. Tempe, AZ 85251 MII User

Del Sol Productions Ruben Ruiz 19 W. Ventura Tucson, AZ 85705 (602) 622-1515 MII Owner

I-MAG Corporation Steven Daniels 9 W. Ventura Tuscon, AZ 85705 (602) 622-6505 MII Owner

KTVW Bruce Sherman 3019 E Southern Ave Phoenix, AZ 85040 (602)243-3333 MII Owner

Rio Salado Community College Madison Walker 3889 East Thomas Rd. Phoenix, AZ 85018 (602) 223-4120 MII Owner

Troxell James Chalifoux 4830 S. 38 St. Phoenix, AZ 85040 (800) 352-7912 Dealer

Vaughn Duplication Services Jim Lawson 3802 East University Drive Suite 2 Phoenix, AZ 85034 (800) 228-7609 MII Owner

Video Technical Services Chip Harold 925 West Baseline Rd Tempe, AZ 85283 (602) 831-2760

Arkansas

5 Star Video Randy McFarland 1112 Garrison Ave Ft Smith, AR 72901 (501) 782-1332 MII Owner

Arkansas Farm Bureau Keith Garrison PO Box 31 Little Rock, AR 72203 (501) 228-1488 MII Heer

KTHV Chuck Weaver 720 Izard St Little Rock, AR 72209 MII Owner

Sigma Broadcasting Don Vest PO Box 4150 Ft Smith, AR 72914 (501) 783-4040

MII Owner

Video Pro Productions
T Hall
PO Box 1694
Pine Bluff, AR 71613

California

MII User

Ace Kutsuna 533 21st Pl Santa Monica, CA 90402 MII Owner

ADV Tech Thomas Huckle 8057 Crossbridge Rd Dublin, CA 94568 (415) 833-6031 MII Owner

AME Inc. Larry Cohen 5510 Cleon Ave. N.Hollywood, CA 91601 (800) 336-3827 MII Owner

AME Inc. Chip Viering 5510 Cleon Ave. N.Hollywood, CA 91601 (800) 336-3827 MII Owner

Anathema Productions, Inc 1453 3rd. St. Suite 609 Santa Monica, CA 90401 (310) 394-2620 MII Owner

Assoc. Elec. Gene Husting 3585 Cadillac Ave Costa Mesa, CA 92626 (714) 850 9342 MII Owner

Audiolab Electronics, Inc. Ron Stofan 5831 Rosebud Ln Bldg C Sacramento, CA 95841 800-624-1903 Manufacturer Audio Visual Headquarters Richard Farnham 2300 Gladwick Rancho Dominguez, CA 90220 (310)885-4200 Supplier

BAVC Luke Hones 1111 17th st San Francisco, CA 94107 (415)861-3282 MII User

Bay Cable Advertising Jim McCuin 20902 Cabot Blvd Hayward, CA 94545 (510)732-7320 MII Owner

BCS Les Spitzer, 1840 Flower Street Glendale, CA 91201 (818) 551-5858 MII User

Bluewater Productions Bill Rosenteel 3205 Production Ave Ste E Oceanside, CA 92054 (619) 721-1951 Mil User

Broadcast Store Barry Seybert 1840 Flower Street Glendale CA 91201 (818) 551-5875

Cal Poly San Luis Obispo Peter Woodworth Audio Visual Services Dept. San Luis Obispo, CA 93407 (805)756-7197

Cal Poly Comm. Services Norm Rogers One Grand Ave. San Luis Obispo, CA 93406 (805) 756-7196

Chiaverini Video Productions Doug Chiaverini 4030 N. Palm Ste 306 Fullerton, CA 92635 (714)526-3388 Mil Owner

MII Owner

Compact Video Group, Inc. John Donlon 2813 Alameda Ave Burbank, CA 91505 (818) 840-7000 MII Owner

Don Brown Productions Don Brown 1429 W. Collins Ave. Orange, CA 92667 (714) 771-9711 MII Owner

DSO Productions Robert Orban 2413 Lincoln Ave Belmont, CA 94002 Mil Owner

Eagle Leasing Kathi Klein 3000 E. Birch St Suite 108 Brea, CA 92621 (714) 579-8777 Leasing

Editing Technologies Corp. Russ Srole 11992 Challenger Court Moorpark, CA 93021 (805) 529 7074 Manufacturer: Edit Systems

Electric Images Video Productions Kevin Delaney Boland 1132 B. East Foster Rd. Santa Maria, CA 93455 (805) 937-3196 Electronic Design & Service Sam Kondoz 6922 San Fernando Rd. Glendale, CA 91201 (818)843-6199 MII Owner/Dealer

First Light Video Publishing Andy Romanoff 8536 Venice Blvd Los Angeles, CA 90034 (310) 558-7880 MII User

Fulton Productions Mervin E. Fulton 3461 E. Tulare Ave. Tulare, CA 93274 (209)686-5117

Crace Video Maynard Dennis Grimm 34476 Colville Place Fremont, CA 94555 (\$10) 794-8365

Grass Valley Group Chris Christensen P.O. Box 1114, Mail Stop N3-2H Grass Valley, CA 95945 (916) 478-3097

Grass Valley Group Don Davis P.O. Box 1114, Mail Stop N3-2H Grass Valley, CA 95945 (916) 478-3097

GRC Electronics Greg Capello 1181 Pioneer Way El Cajon, CA 92020 (619) 464-6446 MII Repair

GRC Electronics Greg Capelo 14082 Valley Springs Road Poway, CA 92064 (619) 464-6446

Harimar Communications Peter Hammar 1Palmer Building 1475 Old Country Rd. Belmont, CA 94002 (415) 508-8182 MII User

High Tech Video Service Bill Pugh 931 Enterprise Drive Sacramento, CA 95825 (916)922-1400 MII Repair Center

Iranica Alireza Tabesh PO Box 8123 Newport Beach, CA 92658-8123 (714)251-1926 MII User

ITD Productions Herbert Kellner, Ph.D. 1561 Madrid Dr Vista, CA 92083 (619)598-8451 Mil Owner

JKATZ Inc. Rich Borowy PO Box 2608 San Fernando, CA91393 (818) 895-8921 MII User

KCRA Marty Main 3 Television Cir Sacramento, CA 95814-0794 (916) 325-3255 MII Owner King Videocable Steve Clark Advertising Production Dept. 22620 Market Street Santa Clarin, CA 91321 (805)259-7646 Mil Owner

Kenneth Kolb 14380 Foothill Blvd #26 Sylmar, CA 91342 (818) 362-6753 MII User

Kolh Entertainment

Annette Wegesend 500 Media Pl. Sacramento, CA 95815 (916) 929-0300 MII Owner

KUSI Richard Large 4575 View Ridge Ave San Diego, CA 92123 (619) 571-5151 MII Owner

KVCR-TV Don Fertitia 701 S Mt Vernon st San Bernardino CA 92410 (909)888-6511 x1325 MU Onese

Metrovonics Lou Wilson 3808 Catalina Los Alamitos, CA 90720 (310) 430-3509 MII Dealer

Miles Media Corp Richard Miles 4200 Glenbrook Ave Bakrsfield, CA 93306-2222 (805)873-1663 MII User

Miller Video and Film Lee Miller 608 Wilson Ave Novato, CA 94947 (415)898-9998 MII Owner

Motion Blur Publishing David Duberman 915A Stanbaugh St. Redwood City, CA 94063 MII Owner

NBC Jim Smith 3000 W. Alamedia Ave Rm 4359 Burbank, CA 91523 (818) 840-4281 MII Owner

NBC Mr. Bill Johnston 3000 W. Alamedia Ave Burbank, CA 91523 Mil Owner

NBC Mr. J. Schoedler 3000 W. Alamedia Ave Burbank, CA 91523 MII Owner

Nelson Media Group Bill Nelson 3703 Savannah Bakersfield, CA 93313 (805)833-8313 MIJ Owner

Odetics Broadcast Gene Zimmerman Jr 1515 S Manchester Ave Anaheim, CA 92802-2907 (800)243-2001 Manuf.

Panasonic Robert C. Patch 6650 Ratella Ave. Cypress, CA 90630 Philips Interactive Media POV Entertainment David White 325 E Hillcrest ste 250 Thousands Oaks, Ca 91362 (803)371-1300 MII Owner

Precious Memories Video Chuck Hashim 320 East 18th St. Bakersfield, CA 93305 (805) 322-6245 MII User

Professional Desktop Video Systems Dave Love 6922 San Fernando Rd Glendale, CA 91201 (800)862-7820 (818)848-9127 MII Owner/Supplier

PSICOR Inc. Harry Hoerr 16818 Via del Campo Ct San Diego, CA 92065 (619)485-5599 x 7135 MII User

Recatec Inc LH Lee 1290 Lawrence Station Rd Sunnyvale, CA 94089 MIII User

MIII User R.T. Forney & Associates 9211 Carrolltown Dr. Humtington Beach, CA 92646-5805 (714)551-9062

R-VCR Larry O. Dean 716 West "D" St. Ontario, CA 91762 (909)984-3057 MII User

MII Owner

SEBA Media Center Larry J. Beldon 818-H Maim Street Pleasanton, CA 94566 (510) 484-9629 MII Owner

Shooby-Dooby Duping Terrence West 1429 W. Collins Ave. Orange, CA 92667 (714) 744-4041 MII Owner

Spot Productions Frank Vanella 5343 Birch Grove Dr. San Jose, CA 95123 (408) 224-1500 MII Owner

Tele-Video Production Services Jon Solander 3655 Grand Ave. ,2nd Fl Oakland, CA 94610 (\$10)893-0555 MII Owner

Tentel Wayne Graham 4475 Golden Foothills Pkwy El Dorado Hills, CA 95630 (800) 538-6894 Manuf.

Toaster Marmalade Mark Stross 4842 Via Colina Los Angeles, CA 90042 (818) 552-5024 MII Owner

Tripp Communications Sales PO Box 5267 Walnut Creek, CA 94596-1267 (510) 686-1801 MII User

Tri-Valley Community TV Jack Oliver 4663-B Bernal Ave. Pleasanton, CA 94566 (510) 462-3030 MII Owner Truckee River Studios Larry Beldon 1680 Diablo Vista Rd Alamo, CA 94507 (510) 943-7192 MII Owner

UC B/HIS Broadcasting NE Peterson 8990 Gaddini Rd Winters, CA 95694 MII User

UCLA-Behavioral Sciences Media Lab NPI Gary Lord 760 Westwood Plaza Los Angeles, CA 90024 (213) 825-0448 MII Owner

United Media Leslie Ricci 4771 E. Hunter Anaheim, CA 92807 MII User

Urutel Video Mark Miller 3330 Cahuenga Blvd, West Los Angeles, CA 90068 (213) 878-5800 Mil Owner

VMI, Inc. Philip Bergey 211 Weddell Drive Sunnyvale, CA 94089 (408) 745-1700

Vaughn Duplication Services Paul Taylor 2465 Campus Dr., Ste M Irvine, CA 92715 (714)25-0190 Mil Owner

Video Post Production Nasser Ardeshir P.O. Box 317 Verdugo City, CA 91046 (818) 903-2885/957-7851 MII Owner

Video Proofs George Barich 560 Martin Ave Studio D Rohnert Park, CA 94928 (707)586-0383 MII Owner

Video Systems Service Center Mike Johnson 23322 Peralta #3 Laguna Hills, CA 92653 (714) 855-1082 MII Repair

Vision Star Productions Miles Strauss 2465 Campus Dr Suite 15 Irvine CA 92715 (714) 852-9927 MII User

Visual Creations Thomas Wilson 2040 Niderer Rd. Paso Robles, CA 93446 (805) 239-0156 MII Owner

Walt Davis Enterprises Doug O'Connor 931 N Cole Ave Hollywood CA 90038 (213)461-0700 Dealer

Wilderness Production Mike Conway PO Box 10260 S. Lake Tahoe, CA 96158 (916)577-3008 MII Owner

Wilderness Video Robert Chasic P.O. Box 2175 Redondo Beach, CA 90278 (310) 539-8573 MII Owner Your Video Productions Jeni Ann & Clark Severson 2183 Fairview Rd, Ste. 104 Costa Mesa, CA 92627 (714)645-9687 MII Owner

Colorado

Advanced Audio Video Philip Yun 7700 E. Illiff, Suite H Denver, CO 80231 (800) 368-0406 MII Owner

American Magnetic Media Jeff Martin 5580 Havana Unit 6A Denver, CO 80239 (800) USA-TAPE MII Owner

FRCC Media Center David Alan Sacher 3645 W 112th Ave Westminster, CO 80030-2199 303-466-8811 x494 MII User

Tom Houston 3143 Glendevey Dr. Loveland, CO 80538-2449 (303)667-2001 MII Owner

KCD Ted Chavez 9952 Eastman Park Dr. Windsor, CO 80551 (303) 686-4640 Mil Owner

KCNC-TV David Layne 1044 Lincoln St Denver, CO 80203 (303) 830-6426 MII Owner

KCNC-TV Larry Ries 1044 Lincoln St Denver, CO 80203 (303) 830-6341 MII Owner

KCNC-TV Don Shurgeleski 1044 Lincoln St Denver, CO 80203 (303) 830-6344 MII Owner

KOAA-TV Ken Renfrow PO Box 195 Pueblo, CO 81002 (719)544-5781 MII Owner

KOAA-TV Peter Hoekzema PO Box 159 Pueblo, CO 81002 (719)544-5781 MII Owner

Martin Marrietta
Jim Pirtle
Falcon AFB
Colorado Springs,CO
80912
(719) 380-2552
Mll Owner

Messa Media Jeff Bahoe 6939 W 25 Pl Lakewood ,CO 80215 (303)237-9409 MII User

Mesa Media Grant Richards 6939 W 25 Pl Lakewood CO 80215 (303) 237-9409 MII User

Optical Audio Productions Mike Koury 2290 E. Prospect, Ste 4 Fort Collins, CO 80525 (303) 484-5535 MII Owner Quest Video Productions Chuck Hemstreet PO Box 1485 LaPorte, CO 80535-1485 (303)224-3612 MII Owner

Rocky Mtn Audio Video Terry Talley 4301 S Federal Blvd 101 Englewood CO 80110 (303) 730-1100 MII User

Vidmaxx Productions Chris Lyman 2100 W. 100th Ave. Thornton, CO 80221 (303) 751-3100

VU Videos Eric Wheeler 1420 Blake Street Denver, CO 80202 (800) 637-4336 Supplier

Connecticut

ANGELSEA Craig Tomlin 55 Russ St. Hartford, CT 06106 (203)241-8111 MII Owner

Anton Bauer Shin Minowa I Controls Dr. Shelton, CT 06484 (203) 929-1100 Manuf.

Cinemat Tim Schult 127 Main St. N. Woodbury, CT 06798 (203)263-0006 MII Owner

Conover Production Services Bob Conover 116 M Research Dr Millford CT 06460 (203) 877 5427 MILLSer

Insight Tom Carroll 19 Ketchum St. West Port, CT 06880 (203) 853-1115 MII Owner

Quinnipiae College Bruce Carpenter Ed McMahon Mass Comm's Ctr. Mt Carmel Ave Hamdern, CT 06518 (203) 281-8636 MII Owner

WTXX-TV George Parson 15 Peach Orchard Rd Prospect, CT 06712 (203)758-3901 MII Owner

Delaware

Fotovideo Associates, Inc. Rick Greenberg Rt 26 PO Box 402 Oceanview, DE 19970 (302)537-1447 MII Owner

Marcom Group, Ltd. Charlie Weber 4 Denny Rd. Wilmington, DE 19809 (302) 764-3400 MII Owner

District of Columbia

C-SPAN
Brian Lockman
444 North Capitol Street
Suite 412
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MILOWART

C-SPAN
Dave Roycraft
400 North Capitol Street
Suite 650
Washington, DC 20001
(202) 626-7991
MII Owner

C-SPAN Tim Dombro 400 North Capitol Street Suite 650 Washington, DC 20001 (202) 737-3220 MII Owner

C-SPAN Tim Masters 400 North Capitol Street Suite 650 Washington, DC 20001 (202) 737-3220 MII Owner

C-SPAN Marianne Woody 400 North Capitol Street Suite 650 Washington, DC 20001 (202) 626-4604 MII Owner

Department of Veteran Affairs George Brown Communications 810 Vermont Ave, NW Washington, DC 20420 Mil User

JAMM-TV David Welsh 1640 Columbia Rd. Washington, DC 20009 (202) 667-5266 MII Owner

National Credit Union Administration Bob Parks 1776 G St. N.W. Washington, DC 20456 MII Owner

Ralph Graves Productions, Inc. 1100 Connecticut Ave., NW Washington, DC 20036 (202) 822-9717

The Media Group Andrea Stelter 1118 22nd St., NW Washington, DC 20037 (202) 833-4461 MII User

WRC-TV Harris Sullivan 4001 Nebraska Avenue Washington, DC 20016 (202) 885-4133 MII Owner

WRC-TV Ron Thorpe 4001 Nebraska Avenue Washington, DC 20016 (202) 885-4012 MII Owner

WRC-TV Mike Benetato 4001 Nebraska Avenue Washington, DC 20016 (202) 885-4139 MII Owner

Florida

ABCI Productions Alden Shipley 5401 Collins Ave. Suite CU12 Miami Beach, FL 33140-2518 (305) 86404800 MII Owner

Audio Visual Inovations Ron Lyman 6313 Benjamin Rd. Tampa, FL 33634 Dealer

John Barker 9350 NW 16th St. Plantation, FL 33322

Bassin Distributing Jim Dichito 15959 NW 15th Ave Miami, FL 33169 (800)329-7664 Supplier Blue Mango Productions Ed Reinhardt 1513 Wiley St Hollywood, FL 33020 (305) 921-0079

Broadcast Infl Group Ron Simboli 8280 NW 27th St Ste 515 Miami FL 33122 (305) 599-2112 MILLIES

Harry Breitmeyer 1365 McMullen Booth Clearwater, FL 34619 (813)726-2024 MII Owner

CBF Media Centre Bob Bernhardt 3400 Raleigh St Hollywood, FL 33021 (305) 964-2940 MII Owner

Centercom Inc. Keith Lamp 4710 Eisenhower Blvd, Ste C4 Tampa, Fl 33634 (813)886-8266 MII Owner

Channel 20 Julie Brechbill 215 N. Olive Ave, Suite 100 West Palm Beach, FL 33402 (407) 355-4573 Mil Owner

Computer Power, Inc. Glenn Caton PO Box 2388 Jacksonville, FL 32204 (904)359-5135 Mil Owner

Crawford Productions Rusty Crawford PO Box 1192 New Smyrna Beach, FL 32170-1192 (904) 427-6626 Mil Owner

Electric Image Media Systems 3409 NW 9th Ave ste 1104 Ft Lauderdale FL 33309 (305)537-9323

Used Eqpt Dealer

Encore Broadcast Sales Jon Faiell 1252 E. Hillsborogh Ave Tampa, FL 33604 (B13) 669-8332 Supplier New\Used Eqpt Dealer

High Tech Enterprises, Inc. Bill Costello 11100 66th St.N. Suite 27 Largo, FL 34643 (813) 546-6407 Mill Owner

Industrial Video Technology Inc. Lisa Heydet 2120 Hollywood Blvd. Hollywood, FL 33020 1(800)362-RENT New/Used Egpt Dealer

Lakeland Regional Medical Center Education Dept. Ryan Lee 1324 Lakeland Hills Bivd. Lakeland, FL 33805 (813) 687-1127 Mil Owner

Lockheed Space Operations Clyde Smith LSO 350 TRM 029 KennedySpace Center, FL 32899 (407) 867-3875 MILLIEET

Lockheed Space Operations Ed Mikulas MS LSO 110 Kennedy Space Center, FL 32899 (407)867-2280 MII Owner Lockheed Space Operations Robert Simmer MS LSO 115 Kennedy Space Center, FL 32899 (407) 867-2280

MagneTech Michael Pardo 3941 SW 47th Ave. Ft Lauderdale, FL 33314 1-800-683-DUPE (305) 791-6711 MII Owner

Mayo Clinic Bill Wirnsett 4500 San Pablo Rd. Jacksonville, FL 32224 (904) 223-2008 MII Owner

Medfo, inc. John P. Lenhart, MD 6110 9th St. N. St Petersberg, FL 33703 (813) 521-4130 MII Owner

Medfo, Inc. Dennis McDougall 6110 9th St. N. St Petersberg, FL 33703 (813) 521-4130 MII Owner

Media Concepts Bob Skidmore 559 49th Street South St. Petersburg, FL 33707 (813) 321-2122 Dealer

Multi Image Group Jim Ballentine 1080 Holland Drive Bocs Raton, FL 33487 (800) 523-2682 Supplier

National Television Supply Chuck Bachus PO Box 130202 Ft Lauderdale 33313 (305) 748-2985 MII User

Pat Appleson Studios, Inc. Pat Appleson 757 SE 17th St., Suite 358 Fort Lauderdale, FL 33316-2960 (305) 587-7900 Mil Owner

Burt Rudman Productions Burt Rudman 3912 Hamilton Club Circle Sarasota, FL 34242 (813) 346-2862

Solid Waste Authority Steve Collegeman 7501 N Jog Rd. West Palm Beach, FL 33412 (407) 640-4000 MII Owner

Sword Productions Dale Sweet 1911 Manor Circle Dr Winterhaven, FL 33880 (813) 293-5916 MII Owner

U.S. Air Force Wright Laboratory WL/MNGI Don Snyder Eglin AFB, FL 32542 (904)882-9911 MII User

Vaughn Duplication Services Rie Everett 5414 Beaumont Center Dr., Ste 202 Tampa, FL 33634 (813)887-3141

Videocam Export Co. Juan Carlos Carrillo 7305 NW 36th Street Miami, FL 33166 (305) 592-2034

MII Owner

Videocam Export Co. Irving Perez 7305 NW 36th Street Miami, FL 33166 (305) 592-2034 Dealer Video Factory Richard Pabis 1126 S. Division Ave Orlando, FL 32805 (407) 246-6316 MII Owner

Video Techniques, Inc. Robert Lorentzen PO Box 9649 Bradenton, FL 34206-9649 (813)746-4949 MII Owner

Vue-Com Inc. Marshall Ham 1126 S Division Ave Orlando, FL 32805 (407)423-7869 Dealer

WDZL Bob Castillo 2055 Lee St. Hollywood, FL 33020 (305) 925-3939 MII Owner

WFLA Mike Healy 905 E Jackson St Tampa, FL 33614 (813) 228-8888 MII Owner

WFTS Luis Romero 4501 E Columbus Dr Tampa, FL 33605 (813) 623-2828 MII Owner

WFTS
Jean Varn
4501 E Columbus Dr
Tampa, FL 33605
(813) 623-2828
MII Owner

WPTV Edward J. Roos P.O. Box 510 Palm Beach, FL 33480 (407) 655-5455 MII Owner

Georgia

Atlanta Duplication Dan Nobels 4330 Royal Mustang Way Lithonia, GA 30058 (404)978-1299

Atlanta Video Production Center MII Owner Joseph Gora Soo Forrest Street, NW Atlanta, GA 30318-7620 Roseann Bt (404) 355-3553 1189 Beech

IBM Victoria Pendleton 3100 Windy Hill Rd. Internal Zip WE1C1 Marietta, GA 30067 (404) 835-3492 MII Owner

IBM Judy Sapp 3100 Windy Hill Rd. Internal Zip WE1C1 Marietta, GA 30067 (404) 835-3492 MII Owner

K&M Electronics 2620 Mtn Ind Park Ste F Tucker, GA 30084 (404) 934-2151 Repair Center

LLithonia Lighting
Mike Rogers
Video Communications
1400 Lester Rd
Conyers, GA 30207
(404) 922-9000 x2517
MII Owner

Motion Visuals Pat Cooksey PO Box 43371 Atlanta, GA 30336 (404)696-2709 MII Owner

National Video Exposure Clyde Land 5100 Kerry Dr. Atlanta, GA 30331 (404) 344-1551 MII Owner Printpack, Inc. John Clower 4335 Wendell Dr. Atlanta, GA 30336 (404) 691-2538 x445 MII Owner

Savannah College of Art & Design Ralph Gnann P.O. Box 3146 Savannah, GA 31402-3146 (912)238-2407 MII Owner

Strickland Video & Film Support John Strickland 2972 Chipmonk Trail Marietta, GA 30067 (404) 988-0803 MII Owner

Vaughn Duplication Services Rick Gauthier 2700 NE Expressway Bldg A, Ste 200 Atlanta, GA 30345 (404)728-9025 MII Owner

Video Age Don Land 5680 Oakbrook Pkwy Suite 135 Norcross, GA 30093 (404) 840-9220 MII Owner

Video Copy Services Rick Stevens 1699 Tullie Circle Ste 117 Atlanta, GA 30329 (800)553-3616 (404)321-6933 Mill Owner

Videotography Inc Damon Smith PO Box 8263 Savannah, GA 31412 MII User

WRBL Productions Barry Cammon/Robert Hill 1350 13th Ave. Columbus, GA 31901 (706) 323-3333 MII Owner

WTVM-TV Mike Burnett P.O. Box 1848 Cohambus, GA 31902-1848 (706) 324-6471

Zan Productions Roseann Bush 1189 Beech Valley Rd. NE Atlanta, GA 3036-3121 (404)872-0719 MII Owner

Hawaii

Hawaian Image Video Ron Darby 44-401 Kaneohe Bay Drive Kaneohe, Hl 96744 (808) 254-4644 Mll Owner

Hot Shot Productions Jim Abell PO Box 1297 Kapan, HI 96746 MII User

Kit Video Productions Bill George 1095 Kalapaki Street Honohilu, HI 96825-2710 (808)395-1244 MII Owner

Video Concepts Bob Ramacher Kevin Harrington 1060 Kupulau Dr. Kihei, HI 96753 (808) 879-1329 MII Owner

Video Lab Norm Nichols 641 Keesumoku, Ste. 5 Honohulu, HI 96814 (808) 947-5227

Idaho

KTRV **Brian Royster** P.O. Box 1212 Nampa, ID 83653 MII Owner

TCI Cablevision Neil Smith 8800 West Park Boise ID 83704 MII Owner

Illinois

3 A B N Moses Primo PO Box 220 W Frankfort, IL 62896 (618) 627-4651

3M Tape Sales Dave Rahmlow 908 N. Elm St. Hinsdale, IL 60521 (800) 942-3961 Manuf.

Bible Students Publications George Tabac 900 Brentwood Bensenville, IL 60106 (708) 595-0984 MII Owner

BCentercom Inc. Vicky Jacobs 3070 N Lake Terrace Glenview, IL 60025 (708)486-8060 MII Owner

Copymaster Video Larry Stengren
711 E. Fairfield Ave. Villa Park, IL 60181 (708) 279-1276 MII Owner

Illinois Central College Tom Boyer 1 College Drive East Peoria, IL 61635 (309) 694-5397 MII Owner

Little Fort Media Weldon Johnson 113-115 N Genesee Waukegan, IL 60085 (708) 244-9666 MII Owner

Master Images Video Duplications, Inc. Skip Navar 112 Carpenter Ave. Wheeling, IL 60090 (708) 541-4440 Mil Owner

Mr. T. Powers 454 N. Columbus Dr Chicago, IL 60611 MII Owner

Provid Supply 896 Webster Ln Desplaines, IL 60016 (708) 299-7832 Supplier

Roscor Corp Mitch Roston 1061 Fechanville Drive Mt Prospect IL 60056 (708)299-8080 MII User

Richert Video Productions Ken Richert R.R. 1 Box 35 Beason, IL 62512 (217)732-8865 MII Owner

State Farm Insurance Randy Smith

I State Farm Plaza Bloomington, IL 61710 (309) 766-6176 MII Owner

State Farm Insurance Steve Snyder 1 State Farm Plaza Bloomington, IL 61710 (309) 766-3368 MII Owner

Televent Video Services Don Shannon 6533 West North Ave Oak Park, IL 60302 (708) 383-5588 MII Owner

TeleVisual Productions Dave Beatty 1287 Wabash Springfield, IL 62704 (217)787-4757 MII Dealer/Repair Center

The Orenda Group Jim Riemeruma 9848 South Winchester Ave Chicago, IL 60643 (312) 238-3578 MII Owner

Three Angels Broadcasting Network Clarence Larson Rt 3 Box 176 Thompsonville 1L 62890 (618)627-4651

Video FX Stuart Soifer 400 Jefferson Ct Wheeling, IL 60090 MII User

Video Production Group Mark Wilder 511 Court St Pekin, IL 61554 (309)353-6158 MII Owner

Video Replay Ron Norinsky 118 West Grand Ave. Chicago, IL 60610 (312)467-0425

Video-Tech Production Alan Thursby P.O. Box 2251 1602 Melrose Ct. Decatur, IL 62526 (217) 877-9422 MII Owner

WICD-TV David Boyer 250 Country Fair Dr. Champaign, IL 61821 (217) 351-8500 MII Owner

WIFR-TV Willard Shears PO Box 123 Rockford, IL 61105 (815)987-5300 Mil Owner

WSBT AM-TV/WNSN FM Chris Thornton 300 W Jefferson Blvd South Bend IN 46601 (219)233-3141 MII Liser

WTVO Al Petzke 1917 N Meridian Rd Rockford, IL 61105 (815) 963-5413 Mil Owner

Indiana

Ball State University Bill Cahoe University Media Services Muncie, IN 47306 (317) 285-1486 MII Owner

Ball State University Chris Weyers Muncie IN 47304 (317) 285-8185 MII Owner

Reed Productions Kevin Bassett PO Box 977 Warsaw, IN 46580 (219) 267-4199 MII Owner

Sho-n-Tell Rollie Bunce 8241 Milhouse Rd Indianapolis, IN 46241 (317)856-5418 MII Owner

Video Management Systems Dan Hall 7857 E 88th Indianapolis, IN 46256 (317) 841-1212 MII Owner

Video Management Systems Jeff McFall 1004 E. Washington Street Indianapolis, IN 46202 (317) 639-6163 MIII Owner

WFFT-TV Mac McShane 3707 Hillegas RD Ft. Wayne, IN 46808 (219) 471-5555 MII Owner

WIPB-TV James Miller PO Box 1708 Muncie, IN 47308 (317)285-1249 MII Owner

WKJG-TV Matt Kyle 2633 West State Blvd Ft. Wayne, IN 46808 (219)422-7474 MII Owner

WSRT AM TV Chris Thornton 300 W Jefferson Blvd South Bend, IN 46601 (219) 233-3141

WTTV Rick Barber 3490 Bluff Road Indianapolis, IN 46202 (317) 782-4444 MII Owner

Inwa

Clowa State University Jim Twetten Media Production Unit Exhibit Hall S Ames, IA 50011 (515) 294-2316 MII Owner

Kirkwood Comminity College Joe Taylor P.O. Box 2068 Cedar Rapids, IA 52406 (319)398-5620 MII Owner

WHO-TV Frank Clark 1801 Grand Avenu Des Moines, LA 50309 (515) 242-3627 MII Owner

23rd Century Productions Jim Infelt 100 E. Bremer Suite 7 Wavesty, IA 50677 (319) 352-1772

Kansas

Beechcraft Corp. Richard Young PO Box 85 Wichita, KS 67201 MII Owner

First Generation Video Wink Friesen Hutchinson, KS 67502 (316) 662-9262 MII Owner

Heartland Productions, Inc. Bryan Winsby PO Box 4180 Shawnee Mission, KS 66204 (913)236-6088 MII Owner

Kansas City Kansas Community Jim Dull College 635 Stoner Ave. College Mychael Kimbrough 7250 State Ave. Kansas City, KS 66112 (913) 596-9639 Mli Owner

KSAS-TV David Bird 316 N. West St. Wichita, KS 67203 (316)942-2424 MII Owner

Majec Video Productions Jordan Gershon 1365 N. Winchester Olathe, KS 66061 (913)894-1188 MII Owner

Prism Productions James Horine 110 South Cherry, Suite 1 Olathe, KS 66061 (913) 782-2992 MII Owner

River City Video Productions Mike Sustar 13000 West Kellog Wichita KS 67235 (316)722-5441

Smokey Hills Public TV Lloyd Mintzneyer PO Box 9 Bunker Hill, KS 67626 (913) 483-6990 MII Owner

University of Kansas Brian Powell Athletic Dept-Football Allen Fieldhouse wrence, KS 66045 MII Owner

Kentucky

Dench Video Services, Inc. Tim Deach 9141 Bardstown Rd. Louisville, KY 40291 (502) 239-0229 MII User

KET Michael Howard 600 Cooper Drive Lexington, KY 40502-2296 (606) 258-7089 MII Owner

S & W Productions Tom Prigge 459 Broyles Ave Paducah, KY 42003 (502) 554-3057 MII Owner

S & W Productions Terry Schmitt 459 Broyles Ave Paducah KY 42003 (502) 554-3057

WPSD-Engineering Dept. Jim Franklin P.O. Box 1197 Paducah, KY 42002-1197 (502) 442-8214

Louisiana

Audio Video Specialists **Bob Leonard** 234 Metairie Rd. Metairie, LA 40005-4596 (504) 835-4027

Execute Productions Tom Samuels 127 S. Solomon St New Orleans, LA 701195928 (504)482-8848

Amanda Jones 1900 N 18th St. Premier Plaza, Ste. 303 Monroe, LA 71201 (318) 388-2438

JB CableAds Shreveport, LA 71101 (318) 222-4290 MII Owner

Newcomer Young Productions James Young 201 Trenton St West Monroe, LA 71291 (318)325-4413 MII Owner

Newcomer Young Productions Ken Purcell 201 Trenton St West Monroe, LA 71291 (318)325-4413 MII Owner

Newcomer Young Productions Chris Tumer P.O. Box 7576 West Monroe, LA 71211 (318)325-1544 MII Owner

Vidox Chris Allain 1223 St. John St. Lafayette, LA 70506 (318)237-1700

WYES Mike Denning PO Box 24026 New Orleans, LA 70184 (504) 486-5511 MII Owner

Maine Maryland

Antietam Cable TV Bill Lucas 1000 Willow Cr Hagerstown, MD 21740 (301) 797-5000 x122 MII Owner

Antietam Cable TV Dave Dahl 1000 Willow Cr Hagerstown, MD 21740 (301)7 7-5000 x122

Antietam Cable TV Cynthia Garland 1000 Willow Cr Hagerstown, MD 21740 (301)7 7-5000 x122 MII Owner

AVA Productions 1412 Northcrest Drive Silver Spring, MD 20904 (301) 384-9595 MII Owner

Bell Atlantic Tom Erdely 801 Roeder Road Silver Spring, MD 20910 (301) 565-8663 MII Owner

Carpel Video Andy Carpel 429 E. Patrick St Frederick, MD 21701 (800) 238-4300 supplier

Colorlab Russ Suniewick 5708 Anindel Ave. Rockville, MD20852 (301) 770-2128 MII Owner

Commercial Video Services Greg Honeycutt 101 Winston, St Cumberland, MD 21502 301)724-2799 Mli Owner

Communications Televideo Ltd. Charles Brochris 9301 Georgia Ave. Silver Spring, MD 20910 (301) 585-6311

Communications Televideo Ltd. Paul Farren 9301 Georgia Ave. Silver Spring, MD 20910 (301) 585-6311

Communications Televideo Ltd. Mr. Han S. Jan 9301 Georgia Ave. Silver Spring, MD 20910 (301) 385-6311

Crabtree Photography & Video Jim Crabtree 739 Manor Drive Oakland, MD 21550 (301) 334-3344

Fallen Angels Films, Inc. San Faunt Sulls Fairly, in Lynn Till 530 Fawn's Walk Annapolis, MD 21401 (410)974-0516 MII Owner

Fay Communications Inc. Tim Fay 802 Argyle Rd Silver Spring, MD 20901 (301)588-0778 MII Owner

Fuji Pro Tape J Thomas Baum 1089 Heathers Dr. Westminster MD 21158-3602 (301) 876-9590 Manuf

Global Vision Tariq Nazir PO Box 535 Reisterstown, MD 21136 (301)356-6715 MII Úser

Homes Focus Productions Don Armstrong 200 E Joppa Rd, Ste L105 Towson, MD 21204 (410)832-5740 MII Owner

Henry Joseph,III 10169 New Hampshire Ave. Suite 198 Silver Spring, MD 20903 (301) 434-7347 MII User

Image Solution Productions Bob Leggum 1375 Canterbury Way Potomac, MD 20854 (301) 340-9566

Image Productions John Young 9535 Mapleville Road Hagerstown, MD 21740 (301) 739-4590 MII Owner

In Motion Magazine Allison Dollar 1201 Seven Locks Road Potomac, MD 20854

In Motion Magazine Lynn Johnson 1201 Seven Lock s Road Potomac, MD 20854

Johns Hopkins APL Fred Carmen Johns Hopkins Rd Laurel MD 20723 (301) 953-6787 MII Owner

KTS Television & Film Mark Kregel 1403 Ronson Ct. Aberdeen, MD 21001 (410) 734-7961

151 Easton Blvd. Preston, MD 21655 (301) 673-7151

PG County Office of TV Resources Don Mattingly 8437 Landover Road Landover, MD 20785 (301) 386-1629 MII Owner

Prince Georges Co. Public Schools Scott Schiller 8437 Landover Road Landover, MD 20785 MII Owner

Prince Georges Co. Public Schools Chuck Wolfe 8437 Landover Road Landover, MD 20785 MII Owner

Ralph Graves Productions, Inc. Bill Graves 5161 River Rd, Bldg 2, Suite 103 Bethesda, MD 20816 (301) 986-4577

Rhema Christian Center Frank DeFede 5412 14th Ave. Hyattaville, MD 20782 (301) 559-5781 MI Ówner

Sion Media Inc. Verden Ness 4020 Blackburn Lane Burtonsville, MD 20866 (301) 421-0268 MII Owner

Studio 101 Bob Lyons 9157 Highbanks Dr. Easton, MD 21601

Lowson State University Stacey O'Neal Dept of Speech/Communication Towson, MD 21204 (410) 830-3433 MII Owner

USF&G Corp Steve Kuhn P.O. Box 1138 Baltimore, MD 21203-1138 (414)578-2916 MII Owner

Video on Location Jimmy Veizis 11600 Nebel St. Rockville, MD 20852 (301) 984-5823 MII Owner

Video on Location Dino Veizis 11600 Nebel St. Rockville, MD 20852 (301) 984-5823 MII Owner

Video Transfer, Inc. Ernie Aschenbach 5709-B Anundel Ave. Rockville MD 20852 (301) 881-0270 MII Owner

VMAG Kendra Cook 5410 Goldsboro Road Bethesda, MD 20817 (301) 320-0077 MII Owner

Washington Professional Systems Mike Geny Mile Gerly 11157 Viers Mill Rd Wheaton, MD 20902 (301) 942-6800 Dealer

W DPF David Hackney/Del Parks 2000 W. 41st. Street Baltimore, MD 21211 (301) 467-4545 WBFF

WHAG-TV Wayne Younkins 13 E. Washington St. Hagerstown, MD 21740 (301) 797-4400

Massachusets

A/V Services **Bob Pooler** 674 Mass Ave (Rt 111) Boxborough, MA 01719 (508) 263-7727 MII Owner

Bob Benson Video Film Robert Benson 287 Chappel St Holden, MA 01520 (508) 829-5448 MII Owner

Crossroads Comm's, Ltd. Peter B. Schulze P.O. Box 428 Monterey, MA 01245 (413) 528-5771 MII Owner

The Camera Corp Marty Feldman 858 Providence Hwy Norwood, MA 02062 Dealer

Mike Healy 25 Highland Terrace #2508 Plymouth, MA 02360

Iron Fist Productions Ariel Lustig 98 Brookline Ave. #2 Boston, MA 02215-3905 (617) 646-5954

I.CR Productions Leo Rotkiewicz, Jr. 46 Elm St South Deerfield, MA 01373-1006 (413) 665-2946 MII User

Media Partners of MA Gary Pink 1837 Ocean St. Marshfield, MA 02050 (617) 837-5301 Mil Owner

New England Cablevision Jerry Klinow 38 Blackburn Center Gloucester, MA 01930 (508)281-2285

Post Time Productions Fred Mycroft 340 Answan Street Rehobeth, MA 02789 MII Owner

Michigan

Blue Sky Productions Peter Hickman 1020 Creyts Rd., Suite 305 Lansing, MI 48917 (517) 886-2010 MII Owner

O Box 96 Bangor, MI 49013 (616) 427-8233

Dunbar Video Productions William Dunbar 2487 Houser Rd Holly, MI 48442 (313)634-8686

Dan Fitzgerald P.O. Box 126 Tecumseh, MI 49286 (517) 423-8124 MII User

Int'l Learning Systems, Larry S. Bothe Rm 120 Bell Hall Andrews University Berrien Springs, MI 49104-0087 (616)471-6052 MII Owner

3470 Dobie Rd Okemos, MI 48864 (517)349-2976

Lake Michigan College Kevin Birdsall 2755 E Napier Ave nton Harbor, MI 49022 (616)927-3571 x5249

Mt Zion Temple David McClure 4900 Maybe Rd Clarkston, MI 48348 (313) 301-6166

PDO2 MultiMedia Kirt Albrecht 7465 West Grand River Brighton, MI 48116 (810) 229-0843 MII Owner

Q-1 Video Network Tim Hart 62 Division Coldwater, MI 49036 (517) 279-8752 MII Owner

True Life Video Ted & Kay Slankster 9155 Davisburg Road Clarkston, MI. 48348 (313) 625-9155 MII User

University of Michigan METN MEIN Jerry McCarty RM 1020 HH Dow Bidg Ann Arbor, MI 48189-2136 (313) 763-1233 MII Owner

Vivid Visions, Inc. Christopher Hart 9282 General Dr., Suite 130 Plymouth, MI 48170 (313) 453-7770 Mil Owner

VPM Studios Gene Casamil 13761 Bell Court Stirling Heights, MI 48312 MII Owner

Western Michigan Public Broadcasting Tim Scarpino 301 West Fulton Grand Rapids, MI 49504 6402 (616)771-6666 MII Owner

Western Michigan University James Kirklin Television Department Kalamazoo, MI 49008-3800 (616) 387-5040 MII Owner

Western Michigan University Janet Oliver Television Studios Kalamazoo, MI 49008-5167 (616) 387-5042 MII Owner

WNEM TV 5 Greg Surma 107 N. Franklin St PO Box 531 Saginaw, MI 48606 (517) 758-8191 MII Owner

WNEM TV 5 Michael I Miller 107 N. Franklin St PO Box 531 Saginaw, MI 48606 (517) 755-8191 MII Owner

WNMILTV Northern Michigan University **Earl Littich** Marquette, MI 49855 MII Owner

Wolohan Lumber Paul Adler P.O. Box 3235 1740 Midland Rd Saginaw, MI 48605 (517) 793-4532 x374 MII Owner

WXYZ Mike Doback PO Box 789 Southfield, MI 48037 (313) 827-9490 MII Owner

WZZM-TV Chuck Mikowski 645 Three Mile Rd N.W. Grand Rapids, MI 49504

Minnesota

Chris Binner 3M Center Building 223-5N-01 St Paul MN 55119 (612) 733-9697

Audio Visual Wholesaler Torn Toutres 5395 31st Ave Plymouth, MN 55447 1 800-862-2339

Century Design Jody Heurung 530 15th Ave. S. Hopkins, MN 55343-7889 (612) 935-0033 MII Owner

CASAA Productions Larry Gilbertson 2101 57th Ave N Brooklyn Park, MN 55430 (612) 560-1335 MII Owner

Kevin Groves 856 Raymond Ave St Paul MN 55114 (612) 646-1780

Conus Communications Jonathan Meyers 3415 University Ave St Paul, MN 55114 (612) 642-4637 MII Owner

Gottry Advertising & Marketing, Inc.
Rich Elsberry
10700 Normandale Blvd Bloomington, MN 55437-Mil Owner

Grant Booker Video Terry Grant 2406 Stevens Ave. S Minneapolis, MN 55404 (612) 874-7452 MII Owner

Jamieson & Associates, Inc. Richard Jamieson 4133 West 45th Street Minneapolis, MN 55424 (612)920-3770

Mike Vinup 708 N. First St., Ste 131 Minneapolis, MN 55401 (612)341-3348 MII Owner

KARE Norm Beardsley 8811 Olson Memorial Hwy Minneapolis, MN 55427 (612) 546-1111 MII Owner

Michael Young PO Box 11954 St Paul MN 55111 (612)825-4835 MII User

King Video Cable Co. Dennis Becker 6901 Winnetka Ave. North Brooklyn Park, MN 55428 (612) 531-4422 MII Owner

Marketing By Video Maintening by Vision
Louis Hagan
6440 Flying Cloud Dr., STE 101
Eden Prairie, MN 55344
(612)944-3323

Mayo Clinic Marvin Mitchell Video Communications Systems Rochester, MN 55905 (507) 284-2511 MII Owner

Miller Meester Advertising Dan Sauard 17 N Washington Ave Minneapolis, MN 55401 (612) 337-9120 MII Owner

Northland Insurance Companies Charlie Stellick 1295 Northland Dr. St. Paul, MN 55120-1146 (612)688-4721 MII Owner

NW Airlines Rob Brandia 5101 NW Dr., N7281 St. Paul, MN 55111 (612)726-0355 MII Owner

On Site Environmental Services, Inc. Tim Lewis 11760 Justen Circle Maple Grove, MN 55369 (612) 428-2666

Physics Curriculum and Instr Dave Hilson 22585 Woodhill Dr. Lakeville, MN 55044 MII Owner

Promotional Films and Video. Al Peterson 1313 Cambridge St. Hopkins, MN 55343 (612) 935-2183 MII Owner

Tape Distributors of Minnesota George Feiker 7630 Washington Ave. Eden Prairie, MN 55344 (612) 947-4007

Mississippi

WJTY, Broadcasters of MS Inc Mike Godwin PO Box 8887 Jackson MS 39284-8887 (601)372-6311 MII Owner

Missouri

Fortis Benefits Insurance Company Gaylene Lienemann 2323 Grand Ave Kansas City, MO 64108 (816)881-8719 MII Owner

KPLR Jim Wright 4935 Lindell Blvd. St. Louis, MO 63108 (314) 454-6306 Mil Owner

LSoutheast Mo State Univ David Andrews
1 University Plaza
Cape Girardeau MO 6370
(314) 651-2257 MII User

University of Missouri Video Scott McLain Network James Gaar 301 Fine Arts Bldg UMKC Kansas City, MO 64110-2499 (816)235-1096

Vaugh Duplication Services Pete Leverenz 13241 Tandem Drive Creve Coeur, MO 63146 (314)576-6804

Montana

Eagle Communications, Inc. C.J. Cannaliato PO Box 5268 Missoula, MT 59806 (406) 721-2063 MII Owner

KECI-TV Larry Arbaugh PO 5268 Missoula, MT 59806 (406)721-2063 Mil Owner

KULR-TV PO Box 80810 Billings, MT 59108 (406) 656-8000 MII Owner

KUSM-TV MT State Univ. Dean Lawver Visual Comm Bldg Bozeman MT 59717 (406)994-3437

Maney Telefilm Dick Maney 842 Lexington Ave Butte, MT 29701 (406)782-8092 MII Owner

Nebraska

Boys Town Mark Warsoski 555 N 30th St Omaha, NE 68131 Mil Owner

BioMed Communications Dept Jim Prucha 2400 California St. Omaha, NE 68178

Chapman & Associates Don Chapman 1912 California St Omaha, NE 68102 402) 3430440 MII Owner

Creighton University Terence Barrio 2400 California St Omaha, NE 68178 (402)280-2072 MII Owner

Creighton University Chuck Lenosky California at 24th ST Omaha, NE 68138 MII Owner

Creative Visual Larry Homan 10135 J st. Omaha, NE 68127 (800) 547-4184 MII Owner

Data Security Inc. Jeff Mahoney 729 'Q' St. Lincoln, NE 68508 (800) 225-7554

Garner Industries 4200 N 48th Lincoln, NE 68504 (800)228-0275

GPI Productions, Inc. Matt Kush, Tom Elkins, Johhnie Travis 9140 W Dodge Rd Suite #222 Omaha, NE 68114 (402)392-3790 MII Owner

NTV Network Jerry Fuerher P.O. Box 220 Kearney, NE 68848-0220 (308) 743-2494 MII Owner

WOWT-TV 3501 Farnam Omaha, NE 68131 (402) 346-6666 MII Owner

WOWT-TV Robert Sandoval 3501 Farnam Omaha, NE 68131 (402) 346-6666 MII Owner

WOWT-TV Carl Bauman 3501 Famam Omaha, NE 68131 (402) 346-6666 MII Owner

Nevada

High Sierra Video Productions Bryan Hoopes 930 Tahoe Blvd, Unit 802 Incline Village, NV 89450 (702)831-1296 MII Owner

Markone Video Mark Carey 220 South Rock Blvd #9 Reno, NV 89502 (702)856-2011 MII Owner

New Hampshire

Channel One Video Bill Channel PO Box 1437 Seabrook, NH 03874 (603) 474-5046 Mil User

Great Northern Video Harvey Weinstein 31 Industrial Park Dr. RFD 10 Concord, NH 03301 (603)228-0412

Icikle Productions Erik Lourette 7 Hampstead Rd Sandown, NH 03873 MII User

Taylor & Company Robin Taylor 13 Darthmouth College Hwy Lyme, NH 03768 (603)795-4100

New Jersey

AICPA Harborside Financial Center Jersey City, NJ 07311-3881 (201) 938-3493 MII Owner 201 Plaza 3

Will Avgerakis Harborside Financial Center 201 Plaza 3 Jersey City, NJ 07311-3881 (201) 938-34932 MII Owner

Audio + Video Post Tony Beswick 235 Pegasus Ave Northvale, NJ 07647 (201) 784-2818

Avon Productions Fred Lipowitz 123 Matis Street South Plainfield, NJ 07080 (908) 756-Q643 MII Owner

Bell Atlantic Corporate Television Richard Deiss 540 Broad Street. Room 400 Newark, NJ 07101 (201) 649-3885 MII Owner

Bottom Line Television Mike Moran 1916 Old Cuthbert Rd. Cherry Hill, NJ 08034 (609) 354-6060 MII Owner

Cassette Dub Inc. Paul Ranieri 245 Livingston Street Northvale, NJ 07647 (201) 767-7077 MII Owner

Costello Video Group, inc. Joe Costello 241 Molnar Dr., Suite 200 Elmwood Park, NJ 07407 (201)791-5449

CNRC Mr. M. Reitman 2200 Fletcher Ave. Fort Lee, NJ 07024 Mil Owner

CNBC Kevin Kudatzky 2200 Fletcher Ave. Fort Lee, NJ 07024 Mil Owner

Garden State Cable TV Martin Otremsky P.O. Box 5025 1250 Haddenfield-Berlin Rd. Cherry Hill, NJ 08034 (609) 427-4670

JC Productions John Cahill 352 Amsterdam Ave. Bayville, NJ 08721 (90R)269-0100 MII Owner

Larry Cohen Productions Larry Cohen 45 Mountain Drive Wachtung, NJ 07060 (908) 561-8742 Mii Owner

New Life Productions Richard Myers PO Box 5500 Miliville, NJ 08332 (609)825-3332 MII Owner

Anthony Cuomo 7 Valley St Hawthorn, NJ 07506 (201) 423-0347 MII Owner

TCI of Northern New Peter Strang-Wolf Cablecasting Department 40 Potash Rd. Oakland, NJ 07436 (201) 779-2444 MII Owner

WJ Kronemyer Associates Bill Kronemyer 280 East Glen Ave Ridgewood, NJ 07450 (201) 445-1919 MII User

New Mexico

CD Productions, Inc. Dale Green PO Box 2785 Corrales, NM 87048-2785 (505)898-1544 MII Owner

CD Productions, Inc. Cindy Barchus PO Box 2785 Corraies, NM 87048-2785 (505)898-1544 MII Owner

Corporate image Video David J. Stewart P.O. Box 90801 Albuquerque, NM 87199 (505) 271-9555 MII Owner

G.C.Video, Inc. Diane Bogle 425 Eubank Blvd, NE Suite E Albuquerque, NM 87123 (505) 293-6509

KGSW-TV Mark Gardner 1377 University Blvd NE Albuquerque, NM 87102 MII Owner

New Mexico Highlands Univ. Drake Bingham Communication Arts Bldg Las Vegas, NM 87701 (505)454-3353 MII Owner

New Mexico Technical Paul Hofman Geoscience Dept. Socorro, NM 87801-4796 (505)835-5108 MII Owner

OnTrack Inc. Cy Leland Box 3188 HS Ruidoso, NM 88345 (505) 378-8030 MII Owner

Sandia National Labs Jim Lloyd Organization 7153 P.O. Box 5800 Albuquerque, NM 87185 (505) 844-3867 MII Owner

Troxell Terry Hixson 2730 San Pedro, NE Albuquerque, NM 87110 Dealer

Vista Media, Inc. Charles Johnson P.O. Box 14392 Albuquerque, NM 87191 (505) 298-0004

New York

A-1 Videography Bill Tucker 1796 Devendorf Rd. Schenectady, NY 12303-2640 (518) 356-0334 MII User

Allen AME Church Gary Fulmore 1100-54 Merick Blvd Queens, NY 11432 (718) 526-3510 MII Liser

All Pro Sid Rubinstein 124 W. 60th St., Suite 51F New York, NY 10023 (212) 582-4611

All Pro Nathan Bacher 124 W. 60th St., Suite 20B New York, NY 10023 (212) 489-5780

Rausch & Lomb Terry Shaw 1400 N. Goodman St. Rochester, NY 14692 (716) 338-8779

er Druker Walter Druker 460 W. 34th Street New York, NY 10001 (212) 268-8800 Supplier

Bennu Productions, Inc. Wayne Keeley 626 McLean Ave. Yonkers, NY 10705 (914) 964-1828 MII Owner

Bravo Studio Michael Shkolnikov 2055 E 57th St Brooklyn, NY 11234 (718) 377-4411 MII User

Broadcast Video Productions Jack Miller 480 Main Street Armonk NY 10504 (914) 592-4151 MII Owner

Broadcast Video Productions Bill Cohen 27 Ricky Rd Ronkonkoma NY 11779 (516)467-7551 MII User

Bronx Community College Prof. Donald Canty West 181st St. & University Ave Bronx, NY 10453 (718) 220-6179

CoarcVideo Edward Helfer Jr. PO Box 2, Rt 217 Mellenville, NY 12544 (800) 888-4451 Supplier

Steve Crispiano 1864 64th St Brooklyn, NY 11204 (718) 232-1852 MII User/Service

The Creators Richard DePaso 41 Skytop Drive Pleasantville, NY 10507 (914) 709-0676 MII Owner

Elite Video Production Kalman Zeines 1612 E. 14th St Brooklyn, NY 11229 (718) 627-0499 MII Owner

Euro Video Productions Carl Holman #9 Hezen Ln Carmel, NY 10512 (800)486-2275

Greater Rochester Cable Harry Goldberg 71 Mount Hope Ave Rochester, NY 14620 (716) 325-1111 MII Owner

HAVE, Inc. Paul Swedenburg 309 Power Ave. Hudson, NY 12534 (518)828-2000 MII Owner/Supplier

Heritage Broadcasting of NY Sargent Cathrall 815 Central Ave Albany, NY 12206 (516) 438-8700 MII Owner

Herkimer County Community College Bob Schultz Reservoir Rd Herkimer, NY 13350 (315)866-0300x238 Mili Owner

Henry Joerz, Jr 7230 73rd St Glen Dale, NY 11385 MII User

HITN Jose Rodriguez 449 Broadway 13 New York, NY 10013 MII Owner

LATSE Karen Pizzuto 1515 Broadway #601 New York, NY 10036 MII User

IBM East Fishkill Joseph Chin Rt 52 Dept-31U, zip 22A Hopewell Juntion, NY 12533 (914)894-8464 MII Owner

ocke Productions Christopher Johnson 14336 Oak Ave Flushing, NY 11355 MII User

Manhattan Cable TV Dean Adrian 120 E 23rd St New York, NY 10010 (212)598-7278 MII Owner

Manhattan Cable TV Fred Ciccone 120 F 23rd St New York, NY 10010 (212)598-7269

Manhattan Cable TV James Oakes 120 E 23rd St New York, NY 10010 (212)598-1787 MII Owner

Moyse & Associates, Inc Claude Moyse PO Box 491 Altamont NY 12009 (518) 861-5663 MII Owner

Nassau County Police CVISCOM Benjamin Homenick 1490 Franklin Ave. Mineola, NY 11501 (516) 573-7013

NBC News Mark Chomut 30 Rockefeller Plaza, RM 737 New York, NY 10120 (212) 664-5888

NBC News Joe Marrone 30 Rockefeller Plaza, RM 737 New York, NY 10120 (212) 664-5888 MII Owner

NBC Bill Sacrey 30 Rockefeller Plaza Rm 1210W New York, NY 10112 (212) 664-7140 MII Owner

NBC News 30 Rockefeller Plaza, RM 807 New York, NY 10112 (212) 664-6118 MII Owner

New York City Sanitation Department Mike Barbarotto Audio Visual Services Unit PO Box 213 Maspeth (Queens), NY 11378 (718) 334-9217

New York Telephone William Basciano 1095 Avenue of the Americas, New York NY 10036 MII Owner

Northstar Television Group Mark Olkowski 405 Lexington Ave, 54th Floor New York, NY 10174 MII User

PCI Recording Service Ted Hummel 737 Atlantic Ave. Rochester, NY 14609 (716) 288-5620 MII User

Vertex Video Group Steven Zacharoff 1680 Bedford Ave. #22D Brooklyn, NY 11225 (718) 756-0438 Mil Owner

Video Keepsakes Doris Blachut 85 Oliver Ave Valley Stream, NY 11580 (516) 285-7146 MII Owner

Video Life Productions lack O'Brien 13 Canterbury Drive 13 Canterbury Drive Middletown, NY 10940 Ph (914) 342-1239 Fax (914) 341-0005 Vidipax Jim Lindner PO Box 2 Eldred NY 12732 (914)557-3600 MII Üser

Warner Advertising Brian Warner 150 N. Winton Road Rochester, NY 14610 (716) 654-6710 Mil Owner

WPIX Bob Murch 222 42nd St New York, NY 10017 (212) 210-2552 MII Lher

WXXA TV Sargent Cathrall 815 Central Ave Albany, NY 12206 (518)438-8700 MII Owner

North Carolina

A&T State University Arthur D. Selby Greensboro, NC 27406 Mil Liser

Camp Lejeune Dept. Schools Mirjam Bohnet Camp Lejeune, NC 28542 Mil User

Christian Faith Center Willie Hodges PO Box 100 Creedmoor, NC 27522 (919) 528-1580 MII Owner

Dream Keepers Intl Greg Davis PO Box 2128 Morehead City NC 28557 (919)726-4888 MII User

Knapp & Assoc., Inc. Ken Knapp 116 E Gordon St. Kinston, NC 28501 (919) 527-2284

Lowe's Companies, Inc. Bill Hurd PO Box 1111 North Wilkesboro, NC 28659 (919) 651-4933

Marine Grafics Bill Lovin Box 2242 Chapel Hill, NC 27515 (919) 362-8867 Mil Owner

Mobile Television Productions Robert Warren 2121 Middle Road Fayetteville, NC 28301 (919)483-4777 MII Owner

mkin Creek Video Production WDAY-TV Harold Ferguson 520 Coffee Ave North Wilksboro, NC 28659 (919) 667-7717

Sara Lee Direct Walter Orechwa 470 Hanes Mill Rd Winston-Salem, NC 27105 (919)519-7138 MII Owner

Southern Video Corp. Louis Asbury 1016 S. Church St Charlotte, NC 28203 (704) 333-5454 MII Owner

Southern Video Corp. Gary Killough 1016 S. Church St Charlotte, NC 28203 (704) 333-5454 MII Owner

State of North Carolina Agency for Public Telecommunications Richard Danchi 116 West Jones Street Raleigh, NC 27603-8003 (919) 733-6341 MII Owner

Target Television Don Kirk 1001 S Marxhall St Winston-Salem, NC 27101 MII Owner

TeleFox Bill Hitchoock PO Box 2069 Moorehead, NC 28557 (919) 240-7340

The Video Production Company of America H. Walter Knox PO Box 1887 Wilmington, NC 28402-1887 (910) 815-0509

Video Perception Rick Hall 1016 S Church St Charlotte, NC 28203 (704)358-0900 MII Owner

WECT Wayne Tiner 322 Shipyard Blvd Wilmington, NC 28401 (919)791-8070 MII Owner

WFXI-TV Gordon Becton PO Box 2069 Moorehead, NC 28557 (919) 240-0888 MII Owner

WJZY Ed McKay PO Box 668400 Charlotte, NC 28266-8400 (704) 398-0046 Mil Owner

WRAL Al Dunber 2619 Western Blvd Raleigh, NC 27606 (919) 821-8564 MU Own

North Dakota

UND Acrospace John Ness PO Box 8009 Grand Forks, ND 58202-8009 MII Owner

Joel Aagenes 301 8th Street So. Fargo, ND 58103 (701) 237-6500 MII Owner

Ohio

Advanced Video Jeff Costa 1312 Wise Dr Miamisburg, OH 45342 (513) 461-6800 Mil Owner

ALLTEL Service Corporation Kenneth C. Nelson 2000 Highland Road Twinsburg, OH 44087 (216)963-1862 MII Owner

B Squadron Video Russ Beckner 2100 Heatherwood Ct Middletown, OH 45042 (513) 422-9552

leff Chambers 4156 Little York Rd Dayton, OH 45414 (513) 890-8797 MII Owner

Classic Video Dave Ginaven 5001 E. Royalton Rd Cleveland, OH 44147 (216) 838-5377 MII Owner

Curtis, Inc. Dan Kerr 2025 Reading Rd. Suite 130 Cincinnati, OH 45202 800-733-2878 MII Owner

Horizon Production, Inc. Bill Jacobs 2321 Kemper Ln Cincinnati, OH 45206 (513) 559-0550 MII Owner

age Video Teleproduction Mike Tonges 6755 Freedom Ave, NW North Canton, OH 44720 (216) 494-9303 MII Owner

Int'l Video Center Fadi Kdayssi 2528 Edgehill Rd Cleveland Hghts, OH 44106 (216)321-1440 MII Owner

Mission Video Support Paul Klouda 1001 I.A State Rt. 88 Gerrettsville OH 44231 (216) 527-2182

Mission Video Support Vince Sisson 10011 State Rt. 88 Cerrettsville, OH 44231 (216) 527-2182 MII Own

Nordson Corporation Thomas Birms 555 Jackson Street Amhenst, OH 44001 (216) 988-9411x4540 MII Owner

Riverside Film & TV Productions Rob Richardson, Jr. PO Box 543 Marrietta, OH 45750 (614) 373-0861 MII Owner

RPC Video Bob Ring 6777 Engle Road, Ste D Middleburg Heights, OH 44130 (216) 891-9797

RPC Video 6777 Engle Road, Ste D Middleburg Heights, OH 44130 (216) 891-9797

Stanley Steamer Infl Steve Whitley 5500 Stanley Steamer Pkwy Dublin, OH 43017 (614) 764-2007x553 MII Úser

Tebton Kevin Gatewood 91 Springside Drive Akron, OH 44313 (216) 666-4300 MII Owner

TW Teleproductions, Inc. Tom Whaley 514 Penn. Ave Sanduskey, OH 44870 (419)621-0602

Vanguard Productions Jerry Beck 7020 Huntley Rd Columbus, OH 43229 (614) 436-4610 MI Owner

Video Duplication Services Pete Stock PO Box 18337 Columbus, OH 43218 (800) 289-4301 MIL Owner

WAKC-TV Earl Miller 853 Copley Rd Akron, OH 44320 (216) 535-7831 MII Owner

WBNX-TV Bill Coger 2690 State Rd Cuyahoga Falis, OH 44221 (216) 920-1019 MII Owner

WEWS-TV Ed Miller 3001 Euclid Ave. Cleveland, OH 44115 (216) 431-3687 MII Owner

WGBU-TV Bill Leutz Bowling Green Univ. 245 Troup St Bowling Green, OH 43403 MII Owner

WGTE TV Dan Nieozwiecki 136 Huron St Toledo OH 43697 (419)243-3091 MII User

WHIZ-TV Elmer Hartmeyer 629 Downard Rd. Zanerville, OH 43701 (614) 453-5431 MII Owner

Wiegand Audio/Video Labs Charles Wiegand 7758 Lafayette Rd, NW Newark, OH 43055 (614) 967-0059 Supplier

WKYC-TV Rex Rickly 1403 E. 6th St. Cleveland, OH 44114 (216) 344-3333 MII Owner

WNED-TV Alan Creed 13870 Salem Alliance Rd Salem, OH 44460 (216) 337-3755 MII Owner

WTTE Russ Tschimpke 6130 Sunbury Rd. Westerville, OH 43081 (614) 895-2800 MII Owner

Oklahoma

Barrister Studios Phil Atkinson 4305 S Mingo Ste A Tulsa, OK 74146 (918)663-7700 MII Owner

BCD Assoc. RM Howard 7510 N. Broadway Oklahoma City, OK 73116 Manu£ KJRH Vic Turner 3701 S. Peoria St Tulsa, OK 74105 (918) 743-2222 MII Owner

Teleproduction Unlimited Frank Laughlin 5820 South 129th East Ave Tulsa, OK 74134-6705 (918) 252-2909 MII Owner

ViaGrafix Jamie Dotson 5 South Varin Pryor, OK 74361 (918) 825-6700 MII Owner

Oregon

Columbia Cable of OR Jim DeChant 14200 SW Brigadoon Ct. Beaverton, OR 97005 (503) 644-3188 MII Owner

Fishing the West Kerry Brown 5484 SE International Way Milwaukie, OR 97222 (503) 654-0092 MII Owner

Hultman Media Services Gary Hultman 300 Limpy Creek Road Grants Pass, OR 97527 (503) 474-6466 MII User

Hyssop Prodution Peter Schaefers P.O. Box 1672 Coos Bay, OR 97420 (503) 267-7120 MII User

KBSP-Blackstar Tim Mance 4923 Indian School Rd, NE Salem, OR 97305 (503) 390-2202 MII Owner

KMTR-TV Kurt Thelen 3825 International Court Springfield, OR 97477 (503) 746-1600 MII Owner

Living Enrichment Center 29500 S.W. Graham's Ferry Wilsonville, OR 97070 (503) 682-4262 MII Owner

Portland Public Schools Jim Kunze Television Services 5210 N. Kerby St Portland, OR 97217 (503) 280-5838 MII Owner

Psycological Research Foundation Loren Parks 19460 SW Shaw Aloha, OR 97007 (503)649-7007 Mil Owner

Teknifilm/Vaughn Jody McNamer 1434 NW 17 th Ave. Portland, OR 97209 (503)224-3835 MII Owner

TELETEK Video Judy & Virgil Sipes 19275 SW Tualasaum Dr Tualatin, OR 97062 (503)638-5035 MII Owner

Pennsylvania

Action Duplication Craig Kuptsow 555 North Lane, Suite 5075 Constrocken, PA 19428 (610) 828-7580 800-VHS-DUBS MII Owner

Arco Chemical Chris Myers 3801 Westchester Pike Newtown Square, PA 19073 (215) 359-2746 MII Owner

Ascension Video Jim Boda 48 A St. Northumberland, PA 17857 (717) 473-9733 MII Owner

Barlieb Wallace Heilman Productions Pamela Wallace 1680 Mine Site Rd Allentown, PA 18103 (215)395-7176 MII Owner

Bell Atlantic Morris Hawk I Parkway, 2nd Floor Philadelphia, PA 19102 (215) 466-3896 MII Owner

CamCast Cable Jim Enix 11400 NE Ave Philadelphia, PA 19116 (215)961-3813 MII Owner

Comtel Instruments Sandy Riscoe #9 Parkway Ctr Ste 180 Pittsburg, PA 15220 (412)922-5720 Tape Supplier

Comerstone TV VTR Maintenance Dept. Signal Hill Dr Wall, PA 15148 (412) 824-3930 MII Owner

Erik Ciel Videotaping 1102 Denise Circle Phoenixville,PA 19460-1815 (215)933-3380 MII User

Grove World-Wide Brad Gentile 1565 Buchannan Trail East Shady Grove, PA 17256 (717) 597-8121

John McKee Productions, Inc. John McKee 1111 Fawcett St. White Oak, PA 15131 (412) 664-7583 Mil Owner

Mine Safety Appliance Co. Josh Bayer PO Box 426 Pittsburgh, PA 15230 (412) 967-3198 MII Owner

PBTS Jim Holzel 310 Sawmill Lane Horsham, PA 19044 (215) 956-9827

Pittsburgh Televideo Inc. Kurt G. Hess 1738 N. Highland Rd. Suite 103 Pittsburgh, PA 15241 (412) 833-6370 MII Owner

Reel Video Productions Mark Johnson 300 Roosevelt Ave Hollidaysburg, PA 16648 (814)695-8054 MII Owner

St. Margarets Hospital Rich Moore 815 Freeport Rd. Pittsburgh, PA 15215 (412)784-5252 MII Owner

Time Warner Cable, Johnstown Jamie Reesman 120 Southmont Blvd. Johnstown PA 15905 (814) 535-6551 Mil User

Video Spectrum Wayne Stephany 630 Hedgewick Dr Lancaster, PA 17603 (717) 394-4042 MII Owner

WICU-TV Vincent Ugoletti 3514 State St. Erie, PA 16508 (814) 454-5201 MII Owner

WHYY John Collins 150 N. 6th. Street Philadelphia, PA 19106 (215) 351-1274 Mil Owner

WIAC Rob Abele 1949 Hickory Ln Johnstown, PA 15905 (814) 255-7625 MII Owner

WPGH-TV John Getz 750 Ivory Ave Pittsburgh, PA 15214 (412) 931-8141 MII Owner

WPIT-TV Chief Engineer PO Box 2809 Pittsburgh, PA 15230 (412)856-9010 MII Owner

Rhode Island

Colony Cable
Dave Ribblett
169 Weybosset Street
Providence, RI 02901-0969
(401)277-7852
MII Owner

Heritage Cable Joe Stafford PO Box 518 Lincoln, RI 02865 (401) 765-6652 MII Owner

Logeegraphics Maria Houde PO Box 23535 Providence, RI 02903 MII Heer

Mark Gordon 145 Hill Side Ave Providence, RI 02914 (401) 273-0412 MII Owner

Narragansett TV William Hague 25 Catabore Blvd E Providence, RI 02920 (401)438-3317 MII Owner

WPRI Jim Costa 25 Catamore Bivd E Providence, RI 02914 (401) 438-7200 MII Owner

WPRI TV-12 William Hague 25 Catamore Blvd E Providence, RI 02914 (401) 438-7200 MII Owner

South Carolina

Action Video Productions Tommy Cabaniss 9 E. Parkins Mill Rd Greenville, SC 29607 (803)297-8865 Mill Owner

Cable Ad Connection Dave Rodney PO Box 746 Johns Island, SC 29457 MII User Greenville Technical College Don Massey PO Box 5616 Greenville, SC 29606-5616 (803) 250-8363 MII Owner

Greenville Technical College Steve Godsey PO Box 5616 Greenville, SC 29606-5616 (803) 250-8436 Mil Owner

Motion Pictures Inc Bruce Coy 554 Johnnie Dodds Blvd Mt. Pleasant, SC 29464 (803)881-9997 MII Owner

Ron Shecut 3404 Keenan Dr Columbia, SC 29201 (803)765-2299 MII User

Walton Productions Stan Walton 158 Cannondale Rd. Columbia, SC 29210 (803) 356-4880 MII Owner

WBTW Doug Crall 3430 TV Road Florence, SC 29501 (803) 662-1565 MII Owner

South Dakota

KSFY Doug Loos 300 N. Dakota Ave, Suite 1000 Sioux Falls, SD 57102 (605) 336-1300 MII Owner

KSFY Eugene Schultz 300 N. Dakota Ave, Suite 1000 Sioux Falls, SD 57102 (605) 336-1300 MII Owner

Prism Video Services, Inc. Thomas & Janice Jeans P.O. Box 8384 Rapid City, SD 57709 (605) 399-9391 MII Owner

South Dakota Public Broadcasting Mike Johnson PO Box 5000 Vermillion, SD 57069 (605)677-5861 MII Owner

South Dakota Public TV Kelly Watson PO Box 22188 Brookings, SD 57007-2399 (605)688-4191 MII Owner

Tennessee

Allied Communications Corp. Mark Conrad PO Box 101482 Nashville, TN 37224-1482 (615)391-5500 MII Owner

City Productions Inc. Cole Smith & Dale Eaton 65 Union Ave. Ste 360 Memphis, TN 38103 (901)525-4712 MII Owner

Linden Communication Group Michael Stevenson 17 W. Pontotoc Suite 207 Memphis, TN 38103 (901) 523-0506 Mil User

Miles & Associates John Miles 755 Broad St NW Cleveland, TN 37311 MII Owner McKee Foods Corp. Tom Hunter, Mgr. AV Division 10260 McKee Rd Box 750 Collegedale, TN 37315 (615)238-7111 x2382 MII Owner

Shop At Home Network Dennis Wilson P.o. BOX 12600 Knoxville, TN 37012-0600 (615) 688-0300 MII Owner

Video Ideas 4762 Highway 58 Suite G Chattanooga, TN 37416 (615) 894-2677 Mil Owner

WMC-TV Mike Schwartz 1960 Union Ave. Memphis, TN 38104 (901) 726-0555 MII Owner

WMC-TV Michael Redfeam 1960 Union Ave. Memphis, TN 38104 (901) 726-0555 MII Owner

World Class Productions Frank Weeks 1300 East 9th Ave Johnson City, TN 37601 (615)928-5753 MII Owner

WZTV Ed Murlatt 631 Mainstream Dr Nashvile TN 37228 (615) 244-1717 MII User

Texas

Accelerated Christian Education Don Gray 2600 Ace Lane Lewisville, TX 75067 (214) 315-1776 MII Owner

Accelerated Christian Education Vincent Smith 2600 Ace Lane Lewisville, TX 75067 (214) 315-1776 MII Owner

A.C.E. School of Tomorrow Barry Bridges PO Box 1438 Lewisville, TX 75067-1438 MII Owner

Christian Video Ministries Jerry D. Dunson HCR 2, Box 530 Beeville, TX 78102 (512) 358-3416 MII Owner

CompuTrac, Inc.
Roger Young
222 Municiple Dr.
Richardson, TX 75080-3583
(214) 234-3888
MII Owner

Design Comm Group Michael Walters PO Box 1956 Forney, TX 75126-1956 (512) 575-4952 MII User

Envision Multimedia a Barnhart Enterprise, Inc. Keith Rogers 9337-B Katy Freeway Suite 308 Houston, TX 77024 (713) 690 6545 MII Owner

Foley's Video Dept. Steve Hemphill Video Dept 1100 Main St Houston, TX 77002 (713) 651-7153 MII Owner Fuji Photo Film Bob Sullivan 1628 West Crosby Road Suite 100 Carrollton, TX 75006 (214) 466-9200 Manuf.

Industrial Audio Video Travis Franklin 2617 Bissonnet Houston, TX 77005 (713) 535-2375 Service & Duplication

ISDL Priya Dasi 400 Barsana Rd Austin, TX 78737 (512) 288-7180 MII Owner

J Darrell Kirkley Inc. Darrell Kirkley 1515 Viceroy Drive Dallas, TX 75235 (214) 243-0013 MII Owner

Don Brown Productions Neil Stewart 1100 Ness Road 1 Suite 406 Houston, TX 77058 Ph (713) 333-1523 Fax (713) 335-7816 MII Owner

KCEN-TV Ken Smith PO Box 6103 Temple, TX 76503 (817)773-6868 MII Owner/Repair Center

KTAB TV Leland Ohlhausen PO Box 5309 Abilene TX 79608 (915)695-2777 MII Owner

KTSM-TV Gregg Davison 801 N. Oregon St. El Paso, TX 79902 (915) 532-5421 MII Owner

KTSM-TV Rick Vilardell 801 N. Oregon St. El Paso, TX 79902 (915) 532-5421 MII Owner

KXTX TV Harold Nash 3900 Harry Hines Blvd Dallas TX 75219 (214)521-3900 MII User

KXXV Jerry Copeland PO Box 2522 Waco, TX 76702 (817) 754-2525 MII Owner

KXXV Mike Jugert PO Box 2522 Waco, TX 76702 (817) 754-2525 MII Owner

KXXV Lou Strowger PO Box 2522 Waco, TX 76702 (817) 754-2525 Mil Owner

Light Ministries Charlene Collins PO Box 670167 Houston, TX 77067 (713)875-4448 MII Owner

Pecan Video Dan Cary 2254 Ravenwood Rd Granbury, TX 76048 (817) 573-6800 MII Owner Project Video Gary Brewton PO Box 5850 Beaumont, TX 77726 MII Lier

Pro Line Video Jim McConnell 2601 McHale Ct. #140 Austin, TX 78758 (512)837-2000 MII Owner

Pro Line Video Terry Nixon 2601 McHale Ct. #140 Austin, TX 78758 (512)837-2000 x22 MII Owner

Pro Line Video Skip Holoombe 4778 Research Dr. San Antonio, TX 78240 (512)690-1234 MII Owner

Siam Satellite-TV Mandonsiri Kattija Ari 7306 Logging Tr Humble, TX 77346 MII User

South Plains College Billy Alonzo 1401 South College Ave Levelland TX 79336 (806)894-9611 MII User

Stillpoint Productions Robert Castaldo 706 W. Main St Arlington, TX 76013 MII User

Technological Innovations, Inc. Dr. Devid Remirez 110 Broadway, Suite 490 Sen Antonio, TX 78205 (201) 299-1883 MII Owner

Texas A & M University Bob Matey Video Lab Kyle Field College Station, TX MII Owner

Texas Department of Public Safety Gene Henderson Media Production Unit PO Box 4087 Austin, TX 78773-0001 (512)465-2217 MII Owner

Texas Education Agency Ernesto Mejia 1701 N Congress Ave Austin, TX 78701-1494 (512)463-9054 MII Owner

The University of Texas Health Science Center Sent Dement Television Production Services 7703 Floyd Carl Dr San Antonio, TX 78284 (512) 567-2220 Mil Owner

The University of Texas Sports Mike Arias Bekmont Hall RM 224C Austin, TX 78713 (512)471-6826 MII Owner

Vena Vision Productions Inc. Kevin Echols First Texas Hidg. 901 Indiana Ave., #395 Wichits Falls, TX 76301 (817) 322-9205 MII Owner The Video Eye Bob Fitch 10960 Milhidge Dr., N. #103 Houston TX 77070 (713) 890-8364

Vietnam Vision David Pham 10500 Richmond Ste 150 Houston, TX 77042 (713) 780-0533 MII Owner

Utah

Bosworth Comms, Inc. Norman Bosworth 421 South 400 East Salt Lake City, UT 84111 (801) 355-8585 MII Owner

Brigham Young University Roger Gunn Communication Dept Provo, UT 84602 MII Owner

DCE Marketing Kenneth Foster University of Utah 2167 Armex Bidg Salt Lake City, UT 84112 (801) 581-5588 MII Owner

DCE Marketing Toni Smith University of Utah 2167 Annex Bldg Salt Lake City, UT 84112 (801) 581-5988 MII Owner

Doug Fawkes 1545 South 990 West Provo, UT 84601 MII Owner

KBYU-TV Lynn Edwards C-302 HFAC BYU Provo, UT 84602 (801)378-3551 MII Owner

KBYU-TV Bob Gillmen C-302 HFAC BYU Provo, UT 84602 (801)378-3551 MII Owner

LDS AV Peter Unwin A/V Dept. 50 East North Temple Salt Lake City, UT 84150 MII Owner

Options, Inc. Cary Dansie 970 East 3300 South, Suite 3 Salt Lake City, UT 84106 (801) 467-7421 MII Owner

Scott Nelson Productions Scott Nelson 5006 S. Fairbrook Holladay, UT 84117 (801) 272-5428 MII Owner

The Studio Russ Relyea 342 W. 200 S. Salt Lake City, UT 84101 (801)595-8800 MII Owner

The Valley Channel Earl Rouse 426 N 400 E Logan, UT 84321 (801)752-7537 MII User

Utah Valley Community College Tom Nelson 800 West 1200 South Orem, Utah 84058 MII Owner Video Lines Dennis Lisonbee 267 S. Mountainlan Orem, UT 84058 (801) 226-0344 MII Owner

Video Reflections David Andrews 6086 Fontainbleu Salt Lake City, UT 84121 (801) 272-3031 MII Owner

Video Works Television Johan Boss 15 East 10200 South Sandy, UT 84070 (801) 565-8754 MII User

Word Perfect Corp. Stave McCurdy 1555 N. Technology Way Orem, UT 44057 (301) 228-4916 MII Owner

Word Perfect Corp. Todd Mortensen 1555 N. Teoknology Way Mail Stop K1100 Orem, UT 84057 (801) 228-4900 MII Owner

Vermont

iris Multimedia Robert Logaden PO Box 726 Buzlington, VT 05402 (802) 865-9560 MII User

Virginia

2PM Multimedia Jim Wine P.O. Box 2 Linden, VA 22642 (703) 636-4142 MII Owner

American Management Syst Michael J. Palmer 4050 Legato Rd. Feirfux, VA 22033 (703) 267-8600 MII Owner

AMPROD inc. Ken Santucci 9501 Atwood Rd. Vierma, VA 22182 (703) 759-7200

Applied Computer Techniques Christopher Moberg 1800 Diagonal Rd Suite 600 Alexandria, VA 22314 (703) 684-3125 MII Owner

AVS Frenklin Carrington 3330 Bourbon St. Fredricksburg, VA 22408 (703) 371-8324 MII Owner

Henry Boisvert 4225 N. Henderson Rd Arlington, VA 22203 MII User

Bon Aventure Video Communications David Jennings 3329-B Bourbon Fredericksburg, VA 22408 (703) 372-3526

Cerilon Health System Roenoke Memorial Hospital Edward Hemilton Andio/Visual Ed PO Box 13367 Roenoke, Va 24033 (703) 981-8975 MII Owner Commonwealth Film Inc Rodney Asbridge 1500 Brook Rd Richmond, VA 23220 (804)649-8611 MII Owner

Creative Teleproductions Bruce Braun 61 Arrowhead Drive Lynchburg, VA 24502 (804)239-3752

Department of Justice Dale Linden Bidg 27958A Quantico, VA 22135 MII Owner

Department of Justice Noel Herold Bldg 27958A Quantico, VA 22135 MII Owner

Empire Video Robert Rositzke 7406 Alban Station Str. A-118 Springfield, VA 22150 (703)866-1934 MII User

Evening Productions Victoris Eves PO Box 2065 Fells Church, VA 22042 MII User

Geroes Communication Rolado Geroes PO Box 3262 Reston, VA 22090 MII User

Gardy-McGrath (Intl) Inc. Dave Gardy 1950 Roland Clarke Pl. Suite 100 Reston, VA 22091 (703) 620-6000 MII Owner

George Mason University Susan Kehoe 4400 Univ. Drive, MS 1F3 TV Studio Pairfax, VA 22030-4444 (703) 993-3110 MII Owner

Gingerbread Production Lealie Quigley 1323 Shepard Dr. Steding, VA 22170 (703)450-7722

C. Mark Guenther 7529 McWhorter Pl#303 Annandale, VA 22003 (703) 941-6943 MII User

Health S. Medical Center Chris Wheeler 7700 Pathsm Rd. Richmond, VA 23294 (703) 527-5960 MII Owner

Orthopaedic Research of VA Chris Wheeler 7660 Parham Rd. Richmond, VA 23294 (804) 527-5960 MII Owner

Park Avenue Teleproductions David Trownsell 3500 Maryland Ct Richmond, VA 23233 MII Owner

Petrel Publishing Gene Bjerke 312 Carry st Williamsburg, VA 23185 (804)229-7667 MII User

Philip Morris USA Jeff Bigham P.O. Box 26603 Richmond, VA 23261 (804) 274-3721 MII Owner Public Broadcasting Service Mark Richer 1320 Braddock Place Alexandria, VA 22314 (703) 739-5471 MII Owner

Public Broadcasting Service Larry Jefferson 1320 Braddock Place Alexandria, VA 22314 (703) 739-5204 MII Owner

Public Broadcasting Service Keith Ellsworth 1320 Braddock Place Alexandria, VA 22314 (703) 739-5302 MII Owner

Reed Film & Video Lloyd Reed 9493A Silver King Ct Pairfux, VA 22031 (703) 385-5830 MII Owner

Russell & Associates Sam Russell P.O. Box 877 Marion, VA 24354 (703) 783-2251 MII User

Sallie Mae Charlie Hite 200 Fairbrook Dr Herndon, VA 22070 (703) 834-5737 MII Owner

Signet Bank Mike Blacker Video Department 11013 W. Broad St. Rd. Glen Allien, VA 23060 (804).0747-2064 MII Owner

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Thomas Communication William Aylward 2550 Huntington Ave Suite 205 Alexandria, VA (703)329-0102 MII User

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Union Theological Seminary John Coffman Media Services Dept. 3401 Brook Rd Richmond, VA 23227 (804)278-4330 MII Owner

Video Services, Inc. Jim Howell 8604 Steples Mill Rd., #104 Richmond, VA 23228 (804) 261-9304 Repair

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The KREGEL Report

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NTSC, Y/C, Y,Pr,Pb, YUV, Composite, Component, 4:2:2, CCIR 601, etc.,: What are these terms and how do they relate to MII?

It can be a sobering sight to step behind the rack mounts of equipment (VTR's, routers, etc.) at a large post production house or television broadcast facility. In fact, to most people, this can actually be quite intimidating. The truth is that video work (editing, distribution) involves a great deal of signal transferring, and cables and wiring are the means to this end. Even a simple "cuts-only" system with say an AU-63 and an AU-65 can become a complicated affair when you set up an audio mixing board along with your usual video monitors and test equipment. And if this isn't enough, now consider the growing desktop and nonlinear interface systems and their unique signal requirements compared to traditional video. It is one thing for a home consumer to connect "video in/video out, audio in/audio out" on a couple of consumer grade VHS decks to make a dub (much less set the clocks on the decks). It is another thing to make and maintain a broadcast grade video signal through editing, switching, routing, and perhaps on to broadcast or cable distribution. These signal concerns are important to MII users because MII is a broadcast quality video format. And when using a high end format like MII, the difference between a good and a great finished video product can often lie in the understanding of signal differences, and the details of signal transfer (i.e. wiring and cabling).

As a quick illustration, lets take a Panasonic

AU-660 studio VTR, turn it around, and look at the back of it. The long rectangular black "box" that runs along the lower part of the deck is the power supply, and it is fairly straightforward with A/C IN and a ground connecter. However the upper back area of an AU-660 is a different matter. To start with, in a long row right above the power supply, you have 11 XLR audioconnections (comprising AUDIO IN, AUDIO OUT, and AUDIO MONITOR). In the upper left area (labeled VIDEO IN) you have LINE IN, REF. VIDEO IN, COMPONENT 1 CTCM VIDEO IN, and COMPONENT 2 Y,Pr,Pb VIDEO IN. In the upper middle you have your REMOTE, ENCODER and WAVEFORM connectors, and in the upper right hand area (labeled VIDEO OUT) you have VIDEO 1, VIDEO 2, VIDEO 3 (SUPER), BLACKBURST, WFM (wave form monitor), COMPONENT 1 CTCM, and COMPONENT 2 Y,Pr,Pb. Finally, sandwiched in with the audio connectors, you have TIME CODE In and Out. Yet another set of connectors that enter into this discussion are Y/C IN and Y/C OUT. These are not found of the AU-660, but they are found on the newer MII decks such as the AU-65. It would take a textbook to fully explore all of the possibilities for using these many connectors. However, in the discussion that follows, we will try to hit some of the major highlights of this "signal" theme.

The composite television signal commonly called NTSC is the "head honcho" of America's modern television broadcasting industry. It began life decades ago when black and white (B/W) TV broadcasting first came into use, was upgraded with a 3.56Mhz subcarrier when color broadcasting came into fashion (still receivable on B/W sets), and remains the standard today in the U.S., Japan, and many other parts of the world (along with sister formats PAL and SECAM). It is a composite signal and includes luminance, color and sync information all in one signal. However, as widely as NTSC is used, it is far from a perfect signal. NTSC is plagued by such things as cross modulation and other signal degradation, and in traditional broadcast applications it uses the majority of its signal energy simply for sync purposes. What are the LINE IN and LINE OUT (VIDEO OUT) BNC connectors on the back of your MII studio VTR? They are NTSC (525 lines, 59.94 fields per second). In short, you can take basically any MIIstudio VTR, carry it into any broadcast facility or cable headend, plug in your VIDEO 1 OUT along with audio and sync feeds to the appropriate connectors, and you can transmit NTSC through whatever frequency allocation that specific broadcast facility or cable headend is using (channel or channels). Should NTSC however be used for all your signal distribution needs, such as editing, dubbing, and other production and post

production functions? In theory you could run an entire facility on NTSC alone. But you would be robbing yourself of the benefits of some of the other signal sources readily available on MII studio VTR's.

As already mentioned NTSC combines luminance and color (chrominance) into one signal (composite). And one of NTSC's greatest shortcomings is that these luminance and chrominance signals tend to pollute and corrupt each other. These effects are especially prominent over multiple generations (i.e. editing, dubbing) of a signal. From an engineering standpoint, the solution to this problem is to separate the luminance and chrominance information during these editing and reproduction functions saving NTSC only for final broadcast applications. This is the thinking behind Y/C and Y,Pr,Pb (component) signal processing. Y/C (closely associated with SVHS and Hi8, often just called "S"), is a two part component signal that separates the luminance information (Y) and chrominance information (C) into two distinct parts. This adds significant durability to video signal processing, and Y/C has grown to be the workhorse of mid-market video production (industrial/corporate, etc.) for this reason. However, it is possible to go one step better and split the chrominance signal even further into what are commonly called the "color difference" signals. This is where we get the broad industry name of Y,R-Y,B-Y and the trade names of Y,Pr,Pb and YUV (originally associated with PAL systems). MII commonly uses the terminology Y,Pr,Pb.

To explore these color difference signals further, lets look at the internal operation of a modern broadcast video camera. Modern television is based on the three additive primary colors, red, green and blue. If you don't believe this, just get up close to your home television (very close) and squint at the screen. What you see are actually small clusters of red, green and blue dots. These three primary additive colors can be mixed to make basically any other color, and that is how the TV screen operates. There are three electron guns inside the tube shooting through grids, each illuminating the pixel areas of one of the primary colors. This scheme of operations is also reflected in cameras. "Three-tube" cameras of years past had "red," "green" and "blue" tubes with the colors separated by a prism before entering the Modern "three-chip" CCD cameras have comparable "red," "green" and "blue" chips also employing a prism arrangement. Is there a difference between red, green, blue (often used with computer monitors as R,G,B) and the luminance, chrominance video based signals already talked about? There is a difference, but the two are very closely related. For video processing, a modern camera takes the R,G,B feed and derives from it an overall luminance value (called Y). Then using this luminance value as a standard, and subtracting combinations of the color signals, any given color value or signal can be solved for algebraically. What results are the "color difference" component signals used with MII, BetacamSP, 1 inch Type C, and which are now also reflected in the component digital domain (4:2:2, CCIR 601). These consist of a luminance signal (Y) and two color difference signals (Pr,Pb or R-Y,B-Y) from which the third primary color signal can always be derived with signal processing.

A few additional notes on Y/C and Y,R-Y,B-Y signal processing. Formats such as SVHS, Hi8 and Umatic may input and output in Y/C (even Y,R-Y,B-Y on some newer SVHS decks) but within these machines bothluminance and chrominance signals are recorded on a single track. MII and BetacamSP VTR's on the other hand not only input and output in Y,R-Y,B-Y, but actually record the Y (luminance) and C (chrominance) signals on separate tape tracks. In MII, you have a luminance or Y track and a separate C track consisting of the "color difference" Pr and Pb signals sequenced together using a method called "Chroma Time Compressed Multiplexing." This is where the acronym CTCM originates as used with the MII 12 pin connector. This separate Y/C track usage further maximizes signal durability and quality above formats such as SVHS, Hi8 and UmaticSP. The practice of combining Y and C on a single track and is the reason SVHS, Hi8 and Umatic are often called the "color under" formats.

Another aspect of Y,R-Y,B-Y signal processing is that the MII and Betacam standards for Y,R-Y,B-Y are slightly different (the signal voltages on the chrominance side). This comes into play when working between MII and BetacamSP if the need ever arises (dubbing, editing, etc.). If you connect MII and Beta machines directly together without taking these differences into account, a distorted signal will result. Also, it is critical when using the 3 BNC connector version of Y,Pr,Pb that the 3 BNC cables be as closely matched as possible, especially in their length. In other words, don't grab a 5 foot, a 6 foot and then a 10 foot BNC cable to tie your decks together in Y,Pr,Pb or to tie them to a switcher. As little as a 1/8 inch difference in cable lengths can begin to cause phase problems with the signals. Keep these cables matched. This is when the factory 12 pin CTCM cable can be advantageous over the 3 BNC cable runs. Please note also that cables that convert the 12 pin CTCM (such as on a AU-650) to 3 part BNC are also available where applications demand it.

How does all this relate to editing and production work with MII? Lets take a look at a practical example. Lets take an AU-62 and an AU-65 and tie them together in a "cuts-only" mode first using NTSC (Line In/Out), then using Y/C In/Out, then using Y,Pr,Pb In/Out (3 BNC) or the 12 pin CTCM version (chrominance time compression multiplexing) found on decks such as the AU-650. And with each of these signal combinations, lets take a MII source tape and copy it over and over until its quality falls below a reasonably acceptable level (a value judgement on our part). What do we find? Using NTSC, straight deck to deck MII, you get roughly three generations before the image goes away. In fact, you can see notable losses after one pass. Using Y/C, you can make four or even five generations with luck (the industry standard for SVHS under similar conditions is three to four). However, using the three part component Y,Pr,Pb, you can go 7 to 8 generations before achieving loses roughly equivalent to 3 generations of NTSC (some have claimed you can even go as high as 10 with finely tuned machines). Additionally, using Y,Pr,Pb, the first 3 generations (where most traditional editing work is done) are almost completely transparent. This means that if you are taking advantage of Y.Pr.Pb component processing in your editing and production work, you are at the top of the chart in terms of analog signal quality and signal durability.

Where does our signal processing go from here? Lets touch upon some analog to digital related issues. The modern home television set in this country is based on NTSC, and the electron beams scanning the screen inside this television (to produce a picture) are analog by nature, and by definition. This also holds true for the loudspeaker producing your television's audio (i.e. it's an analog final product). Additionally, the light falling into your video camera lens and striking your camera's CCD's is also analog in nature as it begins its trip through the camera's electronics. And so are the sound waves activating your camera'smicrophone. It is a fact that digital signal use is becoming more and more widespread within our industry. But it should be fully realized that these digital technologies are simply a sandwich between an analog source, and an analog final product. Digital signal use is indeed a very powerful tool, but it is only a building block in an overall video production chain.

Along the lines of digital, we now have digital

processing (desktop, DVE's, etc.), disk storage systems (nonlinear, video servers), composite digital tape formats, and perhaps the most powerful tape formats ever made, the component digital tape formats. What are the current signal standards for component digital formats such as D-5? These standards are an extension of the existing three part analog component signal format already used with MII, Type C 1 inch, and BetacamSP. You have a luminance signal, and two chrominance color difference signals. One of the more popular terms associated with digital component processing is 4:2:2. In general terms, 4:2:2 indicates that in going from A to D, the luminance is sampled at 4 times the color subcarrier frequency and each of the color difference signals are sampled at 2 times the color subcarrier frequency. This term had its origins back in the days of D-1. CCIR 601 is another notation referring to 720 points being sampled in a 4:2:2 manner along every line of picture scanning at 13.5 Mhz, and the chrominance color difference signals being scanned 360 times a line at 6.75 Mhz. Please note that in terms of television imagery, the human eye tends to be more sensitive to luminance than chrominance, hence the different Y to C ratios, and the reason digital compressions schemes (nonlinear, etc.) often compress the chrominance much more than the luminance.

Other A/D terminology being thrown around these days are the pixel ratios when converting NTSC based television (fields and frames, 262.5 and 525 lines) into digitalformats. Currently, 640 by 480 (note the 3 by 4 aspect ratio) seems to have evolved as a basic standard for digitizing "broadcast" NTSC. This ratio represents a direct offshoot from computer based equipment (i.e. VGA monitors). Better systems are using slightly higher ratios such as 720 by 484 (CCIR 601), and "off-line" nonlinear systems are processing in 320 by 240 or even less. As a reference, the "higher end" HDTV systems standing off on the horizon are on the order of 2000 by 1000 pixels using the 16 by 9 aspect ratio.

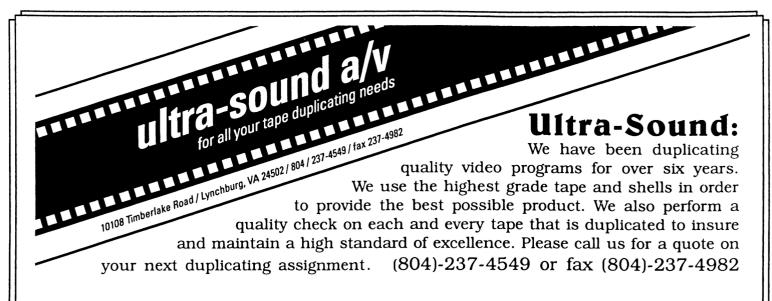
How does MII relate to digital processing? Is MII still potent in the digital age? The truth is that MII's signal resolution (comparable to 1 inch type C) still overwhelms and far exceeds the vast majority of the "desktop" based editing systems out there today, especially nonlinear systems. Most of these systems are digitizing and processing only a small fraction of an original MII source signal. Many of these desktop and nonlinear systems may have "cost effectively" caught up to SVHS, but there are still some wide margins in terms of fully harnessing the bandwidth offered by MII. In fact, in terms of acquisition alone (camera original

footage using comparable CCD cameras), MII actually specs out very close to D-3 in terms of image detail and quality of the signal recorded. Analog may have to be finessed in terms of multigeneration use, but coming straight from the camera MII is capable of recording an extremely crisp and detailed picture. Just ask those who are now shooting MII with the new 565 camera. In going digital, it is just a question of where you want to draw your analog to digital "thresholds" in the overall production scheme of things. And by mating analog tape storage both with digital signal processing (DSP) in cameras and editing systems, you can create some very potent and cost effective production systems.

Looking ahead to continued computerand digital growth in broadcast markets, MII engineers are remaining busy at their drawing boards. They have already looked ahead to using the 16 by 9 aspect ratio directly from newer MII decks, and using a CCIR 601 A to D output converter as an add-on to existing VTR systems. This digital A to D converter is designed specifically to allow working integration of MII directly into the component digital domain, such as with component digital formats like D-5, and with desktop and nonlinear editing systems working along 4:2:2 lines. The new "W" Power series MII VTR's are tailored specifically for the desktop digital environment, and represent one of the most competitive VTR's available today in terms of signal carrying capacity for its cost. To further illustrate MII's potentials in a "digital" world, lets take a look at the following future scenario.

Five years from now I am hired to produce a broadcast television program that will air on a DBS (Direct Broadcast Satellite) system. Millions of consumers now have the 18" EBS disks on their homes, and DBS constitutes an ever growing percentage of the television market. The "head end" for this DBS facility uses D-5 digital component VTR's and disk based storage. To produce this program, I take my WV-F565 DSP camera, and acquire MII footage in the field. Then using my studio MII VTR tieti into a CCIR 601 or similar A to D converter, I digitize my pristine camera original footage as needed into a very high quality low compression nonlinear storage/editing system that is actually capable of absorbing MII's full image quality. Traditional generational loses (the most notable objection to analog) are now a thing of the past, and using this computer based system, I build my program. When I am through editing, I master to D-5 either there in the edit suite, or by carefully transporting my nonlinear disk storage array to a D-5 equipped facility. The D-5 master is then shipped to the DBS headend. The final product is digitally broadcast across the country with beautifulcolor and clarity, and with acquisition quality rivaling any other format in use at the time.

How many new digital tape formats will be released in the next five years? There will be many, just check out NAB 95. But in terms of acquisition, will these formats affordably exceed the cost to benefit threshold currently offered by MII driving a Y,R-Y,B-Y based 4:2:2 converter? This has yet to be seen. It is just a question of where you want to draw your analog to digital "line."



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